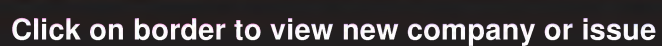


April 1992



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*Click on the article
you wish to read*



Door Hardware Issue

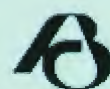
On The Cover

The 1992 version of our Annual Door Hardware Issue features products from the following companies: Medeco Security Locks; Security 777; M.A.G. Eng. & Mfg. Co.; Baldwin Hardware; Marks U.S.A.; Detex Corporation; Rofu International; Magnokrom, Inc.; Securitron; and Alarm Lock Systems. Please turn to page 42 for our special Door Hardware Product Review section.

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Commentary

Hardware Stores & Random Notes

Don't be surprised if you walk into your local True Value hardware store and see a shelf full of Reed code books near the key machine. And you thought code work was only for locksmiths! Ilco Unican owns Locksmith Ledger magazine, as you may already know. And Ledger publishes the Reed code books, as you may also know.

Ilco Unican not only publishes information for locksmiths, but they also put out a quarterly newsletter called KEY TIPS FOR HARDWARE STORES AND HOME CENTERS. The copy I received even has the True Value logo printed on it.

The Spring 1991 issue of Ilco's hardware store newsletter features a full page article encouraging True Value stores to purchase Reed code books. "The hardware dealer and home center is faced with the same problem every day, how to locate a code quickly and translate that information in order to originate a key," says the article. It continues, "The choice of a code book is nothing to take lightly, the more you know about the subject of codes, the more you realize how important a comprehensive set of code reference books can be. And the best code books available in the security industry are the Reed code books."

The article then goes on to explain that Reed books are available to True Value stores in the form of books, computer discs and microfiche. I guess this makes it more convenient for the hardware store kids to use the Reed code system. A large photograph shows an array of Reed books.

Most locksmiths believe it is important to stand out as the source for professional security. Yet the differences between the locksmith and the local hardware store seem to be shrinking every day. Remember, that competition is part of the scheme of things. We cannot eliminate competition from the hardware chains. Nor can we prevent some companies from training them, giving them access to lock picks and code books. The professional locksmith will stand above the crowd, however, because of the superior level of service he or she offers the customer.

Do you have any suggestions about how the locksmith can best insure our position as the professional source for security? Send me your best ideas and we'll print them in upcoming issues.

I recently received a phone call from Glen Elliott of the National Auto League of Canada. This organization handles roadside assistance for a large variety of auto clubs in Canada, including the Esso Auto Club, Visa Gold Card, as well as programs for Lexus, Jaguar, Nissan, etc. In fact, there are about thirty such clubs in all.

Mr. Elliott is interested in hearing from Canadian locksmiths who would be interested in performing locksmith services for his organization. Contact him at the National Auto League, P.O. Box 5845, London, Ont. N6A 4T4. Or call (800) 265-1699.

Lower interest rates seemed to have sparked housing sales, and that is good news for the locksmith industry. Many people in our industry have been reporting an improved business climate to me in the past few weeks. Let's hope for a steadily improving economy!



Marc Goldberg
Editor/Publisher

April 1992 5

Letters

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length. Please address your comments, praise, or criticism to Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107. All letters to the editor must be signed.

Reader Decides Against Renewing Competitor

Dear Marc:

Well it had to happen. This week I got my renewal for the other magazine and I decided to part ways. It does not offer me very much except for the car opening articles and the odd technical article (masterkeying, etc.) I find great enjoyment in reading *The National Locksmith*. I get fresh ideas from young and old and I'm kept up-to-date on developments. While I have respect for what *Locksmith Ledger* has contributed over the years, it is reminiscent of a "dinosaur" compared to your magazine as a young "colt."

Nicholas Tyler
Canada

Locksmith Relates Car Opening Experiences

Dear Marc:

This is in response to your editorial in the February issue of *The National*

Locksmith regarding car opening. You requested responses from us, your readers, on how we handle them. I live in a relatively "safe" area and I must admit that I am rather lax in obtaining make, model, license, etc.

In most cases involving women, the information I need is locked inside the car or trunk, or in their purse. Also the money or checkbook needed to pay me is locked inaccessible, until I open the car. I did have a man a few weeks ago who locked four sets of keys in his GMC Jimmy, plus his wallet.

I do, however, always require a "sign off" if someone has been inside the door before I get there.

I did have one very unusual call in my seven years as a locksmith. I got a late call one night from a man who very excitedly told me he had no keys for his car and had to have his car "right away." I told him to wait until morning, and he disagreed. He offered me substantially more than my usual fee and told me he would meet me at the impound lot. I said you will meet me at the sheriff's office or no deal, he was there and checked out "clean." He never told me what his business was, but I strongly suspect he was a reposessor or a law officer of some sort.

Tom Seager
Michigan

South African Subscriber Displays Service Vehicle

Dear Marc:

Your recent competition which invited locksmiths to send in photos of service vehicles and business premises sounded most interesting. Obviously locksmiths in the USA take a lot of pride in the appearance of their businesses.

As we receive your magazine a couple of months after publication, it is impossible to enter your contests. However, please find a picture of one of my company's vans. We



paint them all identically, seven in all, for easy identification and corporate image. I hope that you will find this of some interest.

Leo Davis
South Africa

Subscriber Comments On New Type Style

Dear Marc:

Continued on page 8



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**It's your reputation.
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for more
information](#)

Continued from page 6

I enjoy reading your magazine far better than any other. Thank you for requesting input from the readers of *The National Locksmith* concerning the new font of the magazine. I have excellent vision but I must say that the new print is less enjoyable to read than the old print. It is too thin and I would prefer the prior font. I wouldn't like to see anything that takes away from this wonderful magazine I like so well.

Thank you again for the opportunity to contribute to the success of yours.

Gene H. Lawson, Jr.
Washington

Editor's Note: How about it guys? What do the rest of you think? Often, reading a magazine becomes habitual and we resist any changes. We would like to hear from those who have an opinion on our new look! Should we change back?

Disabilities Act Explained

Dear Marc:

In your editorial in the February issue of *The National Locksmith*, you stated that you may have given the wrong impression in earlier comments

regarding the impact of the Americans With Disabilities Act, on the locksmith trade. I feel your thinking that the thrust of the act will be primarily concerned with new construction, is slightly off the mark (no pun intended).

From what I have assimilated from reading the act, I agree that new construction will be mandated to comply, but existing business will also be required to come into compliance with the act by retrofitting, and upgrading, accessibility for the disabled.

However, the ambiguity regarding existing businesses, and structures, lies in the fact that alterations required by the act "must be provided to the extent that the added accessibility costs are not disproportionate to the overall costs of the alterations" and, "that they must be readily achievable." If those alterations are not "readily achievable," then according to the act, "alternative methods of providing the services, must be provided." Which could be construed by some as a loop-hole allowing business to circumvent the act.

For my part, I do not perceive that

door hardware such as lever sets, push, pull plates, etc., would be considered "un-achievable," or that the costs of those items would be "disproportionate to the total cost of any necessary renovations called for by the act."

I think that each of us, as locksmiths, should be aware that the changes in the definitions regarding the "accessible path of travel" will mandate changes in doors, locking devices, latches, closers, openers, and door swing directions. And, much of the hardware change-outs will be accomplished by locksmiths!

Primarily, we must be aware of the general provisions of the act; particularly as those provisions apply to the scope of our services to our commercial and industrial customers. Those customers are going to be looking for answers in striving to comply with the A. D. A. The more answers we can supply, the more business we can garner from both old, and new accounts. Knowledge is profitable, so, learn and earn!

From what I have read so far, the A.D.A. spares very few public gathering places (churches and private clubs, mainly), and stresses



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that public accommodations, i.e., doctor's offices, hotels, hospitals, restaurants, theaters, pharmacies, retail stores, museums, parks, libraries, private schools, day care centers, etc., etc., "may not discriminate on the basis of disability," and further are to make "reasonable changes in policies, practices, and procedures to avoid discrimination."

According to the act, discrimination is defined as denying disabled persons "the right to participate in, or benefit from, the goods, services, facilities, privileges, advantages, or accommodations of a place of public accommodation." For example: "a public accommodation cannot refuse to serve a person with a disability because its insurance company conditions coverage or rates on the absence of persons with disabilities".

In other words, there is going to be precious little that business is going to be able to do to keep from complying with the A.D.A.

I should stress here that although the act became effective on January 26, 1992, no lawsuits will be permitted to be filed (except with respect to new construction and

alterations) against businesses with 25 or fewer, employees until July 26, 1992, provided gross receipts are \$1 million, or less. And against businesses with 10, or fewer, and gross receipts of \$500,000 or less January 26, 1992.

The A.D.A. is going to be far reaching in its impact on business, state and local governments, transportation, and employment. I also believe it will be a boon to the informed locksmith.

For those wanting more information about the Americans With Disabilities Act, they can write: The U. S. Department of Justice, Civil Rights Division, Co-ordination and Review section, Post Office Box 66118, Washington, D.C. 200035-61118.

Jake Jakubowski
North Carolina

Should One Charge For Unnecessary Service Call?

Dear Marc:

At any time of the day you receive a call, "Help, I'm locked out of my car! Can you come out right away?"

Locksmith: Yes, I'm leaving right now.

Customer: OK.

You arrive on the job site and

either the car is gone, or the customer is nice enough to wait for you and tell you that the Police or a tow truck driver just happened by and opened the car. What kind of position does this leave you in?

If it is during business hours, round trip time is 1/2 to 3/4 of an hour. You have the cost of gas, insurance and wear on your vehicle. In order to keep the store open during your absence means paying wages for an employee, plus your wages. If you're not radio equipped the customer may say - I tried to call you, but in reality he never tried to reach you.

Do you charge the customer only part of the service call or do you eat the charges?

This situation occurred again this morning at 6 a.m. It's not the first time, but they offered to pay me anyway. (Yes, I took the money.) Sometimes I don't. How about some feedback? Should one insist on time served? Is it right for one and not the other?

Dale Libby said once, "I wouldn't leave the shop on a safe job for less than \$90." What if he got there and they didn't need him? They found the combination or opened it already?

Do I love this Business?

Brad MacKenzie
Ohio

NATIONAL AUTO LOCK SERVICE, INC.

National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.

Newsmakers

New Products and Industry News

The Builder's Selection™ Introduced By Omnia

Omnia Industries has regrouped six of their most popular designs in its line of interior latchsets and lowered their prices in response to the realities of today's economy.

The Builder's Selection™ offers sensibly priced, solid brass knob and lever latchsets, in both traditional and contemporary designs. The grouping provides the builder/remodeler with solid brass details. The latchsets feature thru-bolted, concealed screw roses and tubular latches of superior quality. Available finishes are polished brass, polished chrome, satin chrome and shaded bronze. Each of these styles is hand polished and highly buffed before being protected by a



durable, baked-on lacquer finish. It is because of this special process that Omnia's finishes are long lasting.

All popular functions are available: passage, privacy, closet, single dummy and pair dummy.

For FREE Information
Circle 347 on Rapid Reply

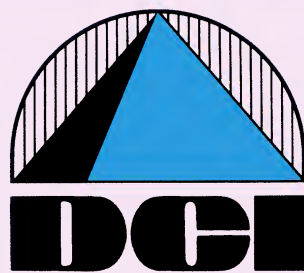
Free Tools For Collecting Master Box Tops

Locksmiths who collect Master Lock 5- and 6-pack box tops can redeem them for free professional tools.

By collecting 50 box tops, locksmiths qualify for a Stanley professional four-piece screwdriver set; 75 box tops qualify for a Stanley professional four-piece wood chisel set; and 150 box tops qualify for a Makita 3/8" cordless electric drill.

The box tops must be from 5- or 6-packs of pin-tumbler products, and locksmiths can use existing inventory to start their collection. The promotion runs from March 1 through August 31, 1992.

For FREE Information
Circle 348 on Rapid Reply



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FireKing International Acquires Meilink

FireKing International, Inc. has acquired the major operating assets and product line of Meilink Industries in Toledo, Ohio.

The Meilink line, which has included fireproof safes since 1899, will continue to be offered through the existing Meilink distribution network, but manufacturing will move to FireKing's New Albany plant. The acquisition also included Meilink's line of fireproof files.

"Bringing the Meilink line into the FireKing family was a tremendous business opportunity," said FireKing president Van Carlisle. "The two product lines complement each other in the marketplace, and we can produce them efficiently by combining both manufacturing operations into one facility."

Carlisle said that the FireKing plant will be expanded and more employees hired as a result of the acquisition. However, he added that Meilink will operate as a separate division of FireKing, assuring previous Meilink customers that parts and service will still be available.

**For FREE Information
Circle 349 on Rapid Reply**

Jet Hardware Releases Catalog Supplement

Jet Hardware has just released their new eight page supplement to their Catalog No. 191. The catalog compiles 78 new key blanks that were added since catalog no. 191 was released early last year. A complete universal cross reference between Jet and other manufacturers is included in this publication.

In addition, Jet has announced five more new blanks they have added to their line.

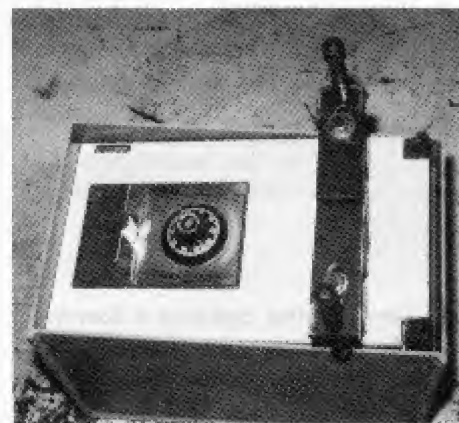


**For FREE Information
Circle 350 on Rapid Reply**

Safe Monkey Wrench™ Introduces New Addition

Jim Ripley, president of Jim Ripley's Services Inc., has announced the completion and successful testing of a new locksmith tool. The tool will be sold under the name of "Safe Monkey Wrench II™."

The new addition to the Safe Monkey Wrench™ will overcome lock malfunctions, lost combinations, set relockers, as well as burglar attempts without drilling hard plate or precision drilling on many square door floor safes. Some can be opened in as little as 15 minutes.



**For FREE Information
Circle 351 on Rapid Reply**



SCHWAB CORP.

Fire protection for your vital records.

It's not safe unless it's Schwab Safe.

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Bommer Industries' 1992 Catalog

Bommer Industries launches its 155th year in the specialty hardware industry with a new catalog listing its quality line of spring hinges, pivots, and heavy-duty lavatory hardware.



Bommer Industries
quality hardware is our
specialty

Leading the catalog is Bommer's 4300 series single acting spring hinges with 21 variations, including 12 special 4300 numbers for nine different door/frame manufacturers. The 4300 series satisfies the need to

install a door closing device in new construction, and can be used to convert doors in existing buildings to be self-closing. The 4300 meets UL listing requirements for fire door applications, is non-handed, made of steel material, and its spring tension can be easily adjusted.

For FREE Information
Circle 352 on Rapid Reply

B.J. Safe Debuts Full Line of Safes

B.J. Safe, Inc. has introduced 36 models of home, hotel, office, fireproof data and burglar safes. The comprehensive line of B.J. safes offers the value of quality, American made La Gard lock mechanisms and rugged fabrication.

B.J. Safe is seeking qualified security equipment dealers and locksmiths nationwide to handle the new line.

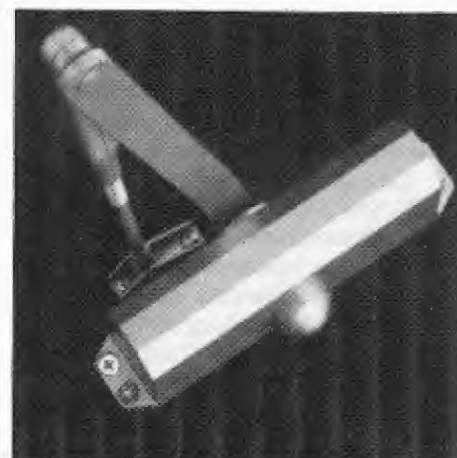
A high-security programmable electronic lock option featuring over ten million possible six-digit combinations is also available. The fireproof safes are tested in accordance with KSG-4500, which includes a two-hour 1,850 degree F heating test, drop test and reheating test.

For FREE Information
Circle 353 on Rapid Reply

Dorma's 640/650 Spring Door Closers

To offer a simple solution to accessibility code compliance, Dorma has enhanced its 600 series door closer line to include adjustable spring power and a resized closer body which greatly expands its retrofit capability.

The newly engineered line features two ranges of spring adjustment. The 640/650 is adjustable from size 3 through 6, primarily for exterior doors while the 641/651 can be adjusted from spring sizes 1 through 4 for accessibility applications on both interior and



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exterior doors.

Because spring power is adjustable with the turn of a hex wrench, the 640/650 line can be custom-tailored to meet the demands of various door environments. As a result, the door's closing force can be optimized while it retains an opening force low enough to meet barrier-free requirements.

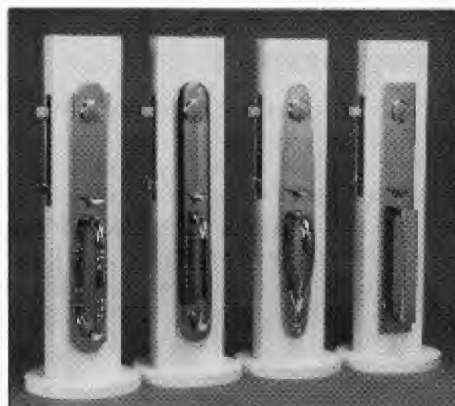
**For FREE Information
Circle 354 on Rapid Reply**

WeslockNational's Premiere Handlesets

WeslockNational is introducing the "Premiere" edition; four new forged brass handleset designs that capture the look of a very expensive mortised handleset and can be installed in less time with standard tools.

The Premiere handlesets (1800 series) is now available. The Plantation and Manson designs are traditional; the Herald Square and Townhouse designs have a contemporary motif.

WeslockNational has also created a special Premiere key shaped like a "P" to enhance pride of ownership.



Not only does it resemble a fine piece of jewelry, but because of its unique shape it is easier to turn and locate on a key ring.

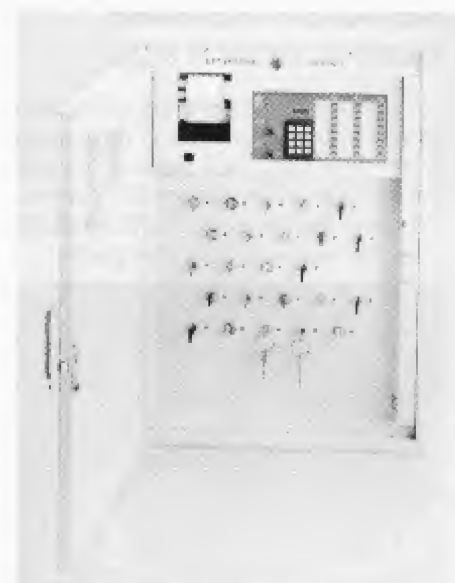
**For FREE Information
Circle 355 on Rapid Reply**

Key Systems Inc.'s Automated Key Control

Keys never leave the facility with the electronic "Security key monitor."

High security key "safe" releases one or more of 24 key sets to up to 250 authorized users. Key pad access (PIN code) opens door and releases keys if time and date are within programmed rules.

All transactions are recorded and



can be printed for a documented audit trail.

Microprocessor enables many programmable options to customize the system. Alarms can signal when keys are not returned or violations are encountered. Backup battery power assures uninterrupted operation. Remote monitoring is available through a RS232 serial port.

**For FREE Information
Circle 356 on Rapid Reply**

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HIGH SECURITY LOCKS

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in locking systems for security,
safety, and control.**

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McGunn's Improved Cash-Handler 5 Safe

The Cash Handler 5, manufactured in the United States, is a time-delay cash drop safe that delivers burglary resistance while preventing armed robbery and internal theft, available from the McGunn Safe Company.

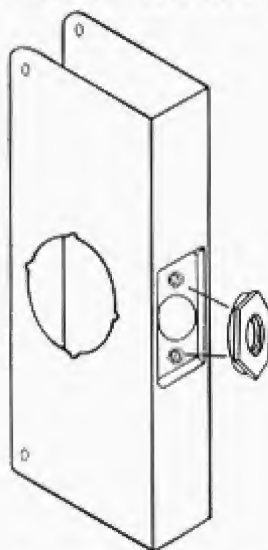


A Cash Handler 5's defeated the attempted burglary of a True Value hardware store in Kula, HI. Its strength, durability and resistance to forced entry are achieved by its one-piece, milled frame, enlarged, fish-resistant, double baffle drop drawers, heavy hinges, four locking bars, and break away cam that defeats attempts to force the handle.

For FREE Information
Circle 357 on Rapid Reply

Don-Jo Expands Wrap-Arounds

Don-Jo Mfg. Inc. has announced a further expansion of its classic wrap-around category. Three new wrap-arounds have just been added to accommodate extra thick doors. The CW-200 is designed to fit a 2" thick door, the CW-214 is designed to fit a 2-1/4" thick door and the CW-212 will fit a 2-1/2" thick door.



For FREE Information
Circle 358 on Rapid Reply

Jado Offers 70 Years of Experience

Seventy years ago, a company harnessed German craftsmanship and began offering a distinctive line of hardware to the world. Today, Jado does business in more than 300 countries.

Jado is the only manufacturer to coordinate door, cabinet, bath accessories and plumbing. What's more, Jado manufactures and markets its own products in the U.S.A. By manufacturing 95% of its own product parts, Jado maintains autonomy from other manufacturers, and can respond rapidly to customer needs and growth opportunities.

All Jado product designs are completely original, owing inspiration to a world renowned group of designers. Frog Design Group, De Lapine, Kevin Waltz and Scimone are among the creative forces which forge the distinctive Jado appeal.

The tradition of German engineering is carried out in Jado owned manufacturing facilities in Germany, Italy, Portugal and France.

For FREE Information
Circle 359 on Rapid Reply



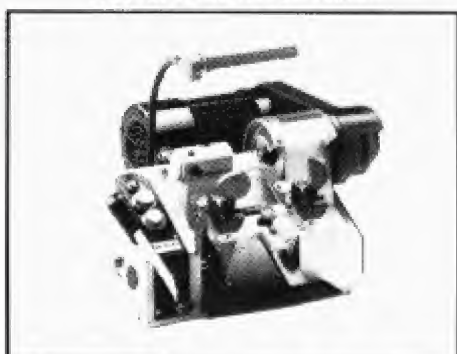
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Enter the 1992 Technitips Contest

\$\$\$ Thousands and thousands in cash and prizes! \$\$\$

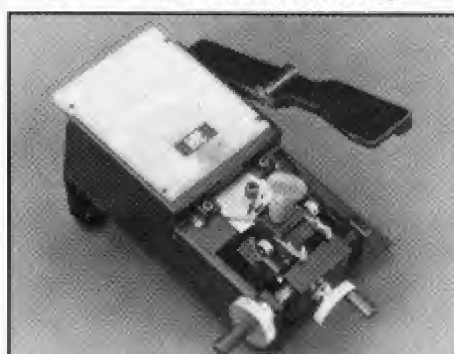
Silca's Bravo USA



First Prize

Locksmith designed, the Silca Bravo USA is a quality semi-automatic duplicator. Four-way jaws hold even the smallest keys as this. One of the most accurate key machines on the market.

HPC's Punch Machine™



Second Prize

The Punch Machine™ (1200PCH) is HPC's newest addition to the 1200 series key machines. It works on the same principle as the 1200CM, making it quite versatile. It is also very accurate and completely portable.

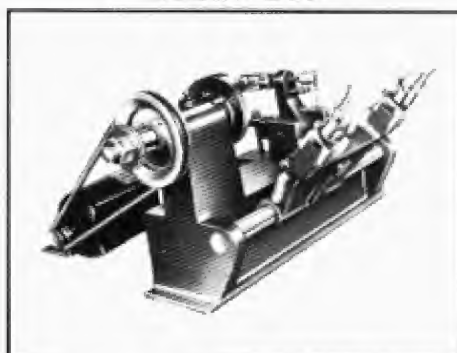
ESP 5000



Third Prize

The model 5000 key machine can be used for manual cutting or, with the flip of a switch, it will cut keys automatically. It is designed to accommodate large head keys such as hotel and foreign auto blanks.

Belsaw 200



Fourth Prize

Duplicate, cut by code, cut flat steel keys. Complete machine with motor, three cutters, guides, and instructions. Built-in micrometer.

HPC 9120



Fifth Prize

HPC's most compact key cutting machine features reversible jaws. Double-sided copy dog cuts flat steel and safety deposit keys and has softy brush. Excellent versatile machine.

\$100 Cash & Flat Rate Manual

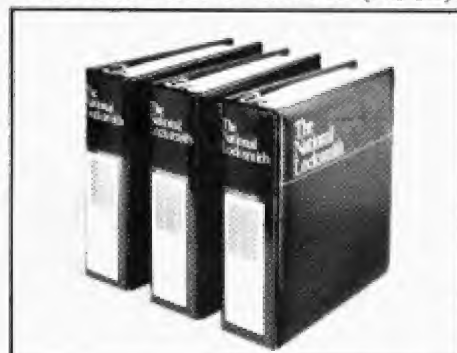


Sixth Prize

\$100.00 in cash will brighten your day! So will the *Flat Rate Manual for Locksmiths*. The manual will help you price your services for profit. You won't ever have to guess how to price again.

Code Books From *The National Locksmith*

General Code Book Set (NGCB)



Seventh Prize

These three books contain 450,000 codes covering domestic lock and automobile codes.

Padlock Code Book Set (NPCB)



Eighth Prize

These three volumes offer 462,000 covering Dudley, American (Junkie), Master and Yale.

Foreign Code Book Set (NFCB)

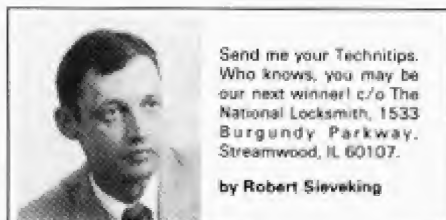


Ninth Prize

This two volume set holds 432,000 codes for the complete variety of foreign codes, from Alpha Romeo to Yugo.

Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips. Who knows, you may be our next winner! c/o The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

by Robert Sieveking

Congratulations to all those who find their Technitips printed here this month. There is a real increase in the number and quality of Technitips this month. Thank you all, for your overwhelming participation and support. If you submitted tips and haven't seen them in print yet, be patient. The mailbox is really stuffed. If you haven't submitted your tips yet, don't delay. The best always move to the front, but you have to get moving. Check out some of those monthly prizes. Technitips has become a really important part of the industry, but only through your participation.

For our little shop, this has been a busy month. Spring is a great time of year. Tax time is on us again, but thankfully we had enough in the bank to keep the revenue away from the door. Spring is an

exceptionally good time for sales. Drop an ad in a couple of the local buyers guide papers, and pump up some deadbolt sales. Offer a free smoke detector/alarm with three deadbolts, installed. Or maybe a free peep-hole with two deadbolts. Make a package deal, and spend a few bucks on the advertising. Then give super service to everyone that calls. Just remember, when a

customer calls, "they want to know how much you care, before they care how much you know."

They also want a bargain, so keep your prices competitive. Offer more service, better service, or just nicer people to do business with, but give every customer as much as you would want if you were in his shoes. I guess that sounds a lot like "do unto others as you would have them do

Continued on page 20

How To Enter

All you need to do to enter is submit a tip, covering any aspect of locksmithing to The National Locksmith. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Robert Sieveking, Technitips' Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will not be eligible! So get busy and send in your tips today. You may win cash merchandise, or even one of many key machines or code book sets! At the end of the year, we choose the winners of the listed prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1992? Enter today! It's a lot easier than you think!

These Prizes Awarded Each Month!

All-Lock A-7000 VATS Decoder
HPC Pistolpick
Silca Rubberhead Keyblanks (100 blanks)
ESP PR-13 Professional Lock Pick Set
Sieveking Products EZ-Pull GM Wheel Puller

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Yes, every tip published wins a prize. But remember, you must submit your tip to The National Locksmith exclusively. Each and every tip published in Technitips wins you \$25.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from The National Locksmith. You also receive a Bonded Locksmith bumper sticker and decal. Plus you are now eligible for the really big prizes!

Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$35.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal and a Locksmith Cap. Plus, you may win one of the annual prizes.

Continued from page 18

to you," doesn't it? It may sound corny or old hat, but it works for me, and it'll work for you. Don't ask why, or question the how, just "DO IT." Hard times can be the good times.

April's Best Tip

The U.S. Postal Service is now using the Grumman LLV (Long Life Vehicle) as their primary route vehicle. It has replaced many of the Jeep type vehicles. If called to service these vehicles, you may be surprised to find that they are built over a Chevy S-10 chassis. The column is a Saginaw type, that we should all be familiar with. The ignition cylinder looks like the All-Lock #1426, standard GM ignition cylinder and is replaceable with that in an emergency.

Use the same techniques in duplicating the keys as you would with Chicago and Illinois type double-sided keys. There is a square shoulder in the cut configuration that acts as the stop for the key, so make sure you duplicate it with a sharp single angle cutter only. A "V" or double angle cutter will not make a good

working key. Use the Iico 1524 blank, shown in Illustration one, for

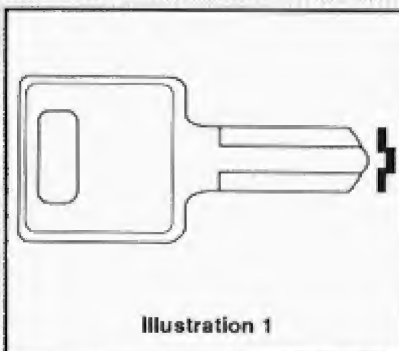


Illustration 1

these vehicles.

As mentioned, these vehicles are made over a Chevy S-10 chassis. In Montgomery Pennsylvania. If you need a key, the code series is G 10 to G 59. There are presently only 50 keys in the series. They can be ordered by calling (717) 547-7330 or (800) 521-5289 and using the part number 81693026-code. The code number on the ignition will get you the right key. The cost is \$2.71 plus postage. If you need a new ignition, they should be ordered by PN #81693013-code (cost is \$5.32). Notice that the ignition cylinder

must be ordered with the correct code number. Door lock cylinders are ordered the same way. This assures that the keyed alike system, with the other lock cylinders on the vehicle, is preserved.

These are well engineered vehicles, and they should be repaired using only the correct parts. To reduce down time, and facilitate use of the vehicle while parts are on order, I'm sure it is OK to use the All-Lock Ignition. But, don't substitute or permanently change the cylinders to other than the manufacturer's original parts.

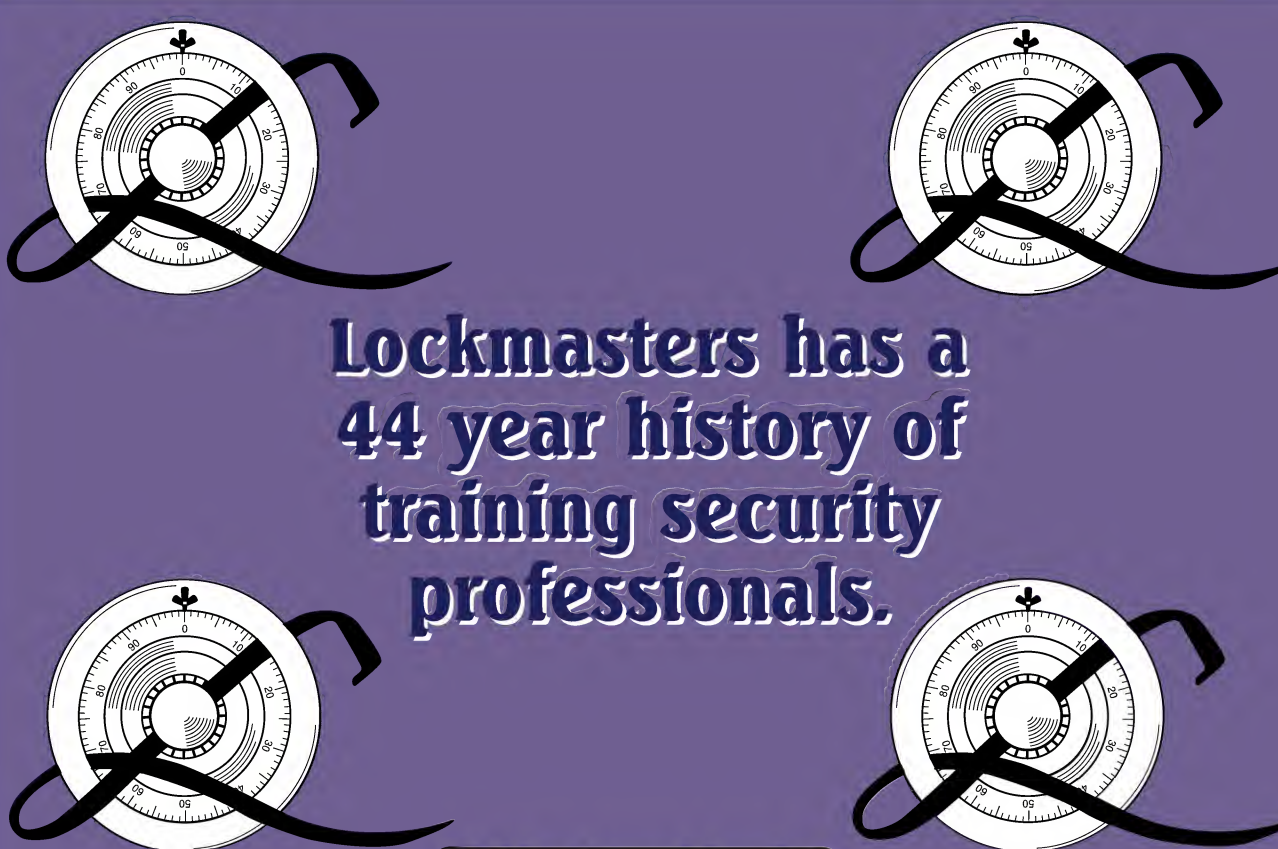
To get this business, contact the VMO (Vehicle Maintenance Officer) at your local post office. Your service charges should be competitive with the GM dealers that presently provide this service.

H. L. Whitford
California

All-Lock VATS Decoder Winner

This Technitip concerns checking the pins in those Chrysler and Ford door cylinders when you rekey them. The door cylinder plugs can not be

Continued on page 23



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Continued from page 20

removed, as you know, which makes checking the pin lengths before you completely assemble the cylinder, rather difficult.

When pinning these cylinders, to make sure the pins are not too long or too short, I put a little rod into the top of the cylinder to check the pin. The rod pushes the bottom pin down, in contact with the new key, and acts as a top pin. If the plug will not turn, I can easily feel whether the pin is too high or too low. This allows me to find and change the pin before adding the top pin and spring.

Check each pin, as you combine the cylinder. You'll have less trouble pinning these cylinders and save time too.

Juanita Ramsey
Texas

EZ Pull GM Wheel Puller Winner

Here is a Technitip for an easy to make flexlight or inspection light for opening cars. Good light, inside the door, makes locating and identifying linkages, and opening some of the newer body styles, much easier.

To make my "high output" flex light, I used the 6 volt lantern you see in photograph two. I installed a phono jack in the case of the lantern, and connected it to the



2. Six-volt lantern/flex light.

battery so that it did not interfere with the operation of the lantern. I then made up a six foot length of coaxial cable, with a phono plug and a high output lamp globe (bulb). When the cable is plugged into the lantern, the lamp is on. To turn the lamp off, simply unplug the cable.

The large capacity battery, and better lamp bulb make the lantern superior to other "penlight" type flex lights. The cable is long enough to allow the lantern to sit on the ground next to the car, or on the hood as you work to illuminate the inside of the door. Soft foam tape, the kind used for weatherstrip, can be used to pad and make the bottom of your lantern slip-proof.

I have made several of these

lights for locksmith friends.

Herman B. Pate
Tennessee

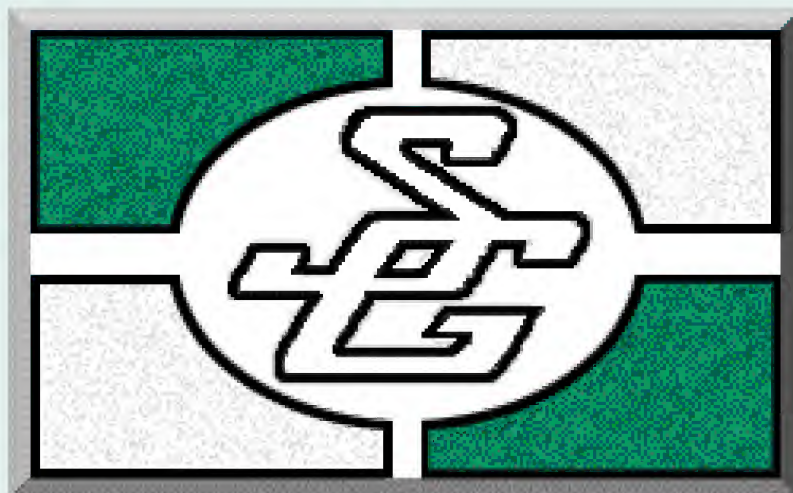
HPC Pistolpick Winner

My tip concerns an easier way to open the Bommer style lever tumbler mail box locks. This Tip requires that a key be made, like you see in illustration three. The key is made to apply tension to the bolt while picking. Make the key from an Ilco #1270C blank. Cut the key as illustrated. The width of the blank is cut at the stop (the pilot tip) to .108". This is pretty much standard for these

keys. The body of the blank is tapered from .180 at the bow, to .122 at the base of the operating portion of the key. What we are making here is a special tension tool for these locks.

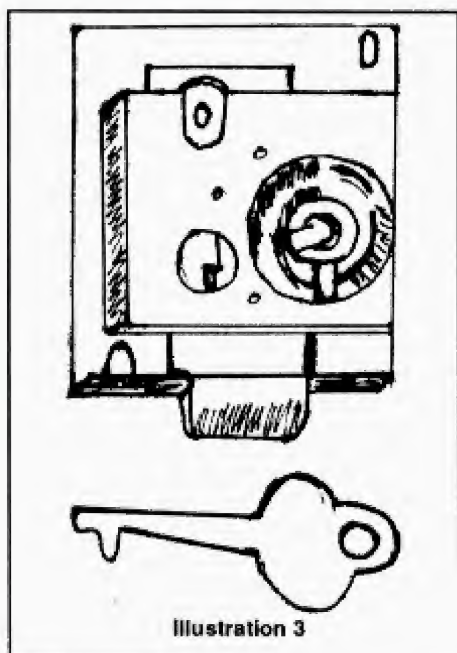
Insert the key into the lock, and rotate it 90 degrees, to contact the bolt. With turning pressure on the key, in the opening direction (to the right), insert the hook pick into the lock at the point of the throat cut and pick the lever tumblers to the left. The pressure of the turning key and the picking will soon open the lock.

If you have been having trouble



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picking these locks because of the difficulty in applying pressure to the bolt, this Technitip will surely increase your success. I have had much better success with this method than with any other turning tools.

With the lock open, I use *The National Locksmith General Code Book* to find the proper working key. The code number is on the back of the lock case.

George Gonzalez
Minnesota

Silca Keyblanks Winner

How many times have you found a broken screw in the back of a mortise cylinder plug, and were unable to remove it? This Technitip is a method that has worked for me. It can be used even when the screw is broken flush with the surface.

Use a jeweler's saw, or modeler's hacksaw to create a slot in the top of the broken screw. The thin blade is essential, because of the small diameter of the screw. With a slot in the broken screw, it is an easy matter to remove it with a small screwdriver. The groove in the rear of the lock plug, created by the saw, will not effect the operation of the cylinder.

For places where it is impractical to use a jeweler's saw to place the groove in the broken screw piece, an abrasive cut-off wheel in a Dremmel tool will do very nearly the same trick. Be sure to get "thin" cut off wheels, as they come in more than one thickness.

Use this Tip to remove broken dial ring attachment screws from the face of a safe that has been vandalized. It is much easier than drilling and re-

tapping the screw holes.

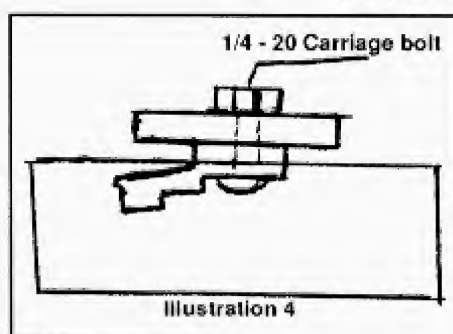
Mel Twite
South Carolina

ESP Pickset Winner

I had a Yale model 112 and a 116 deadbolt lock with the thumbturn broken off. When a new replacement was not immediately available, and the customer needed to secure the door, this Technitip got me going until a suitable replacement was found. After repairing the lock in this manner, you may even feel that a replacement is not necessary.

Drill a 1/4" hole, completely through the thumb turn. This will go up the center of the shaft. Using a 1/4-20 carriage bolt, from inside of the lock case, attach the actuator cam to the thumb turn in the proper position. When the carriage bolt nut is tightened, the cam and thumb turn should rotate freely in the lock case. Assemble the bolt and back plate to the lock case, and check for proper operation. Assemble the lock case back onto the door, and be sure the actuator from the rim cylinder does not bind on the head of the carriage bolt. You may need to shorten the rim cylinder actuator, as the clearance that was afforded by the hollow thumb turn shaft is now filled by the carriage bolt. You may find that a 1/4-20 flat head machine screw will also work, but the carriage bolt is the better choice. Use a chrome 1/4-20 acorn nut in stead of the hex nut, to give a better appearance to the completed job, and use a little Loc-Tite compound on the nut to prevent loosening. (See illustration 4.)

Dennis R. Spyres
Oklahoma



We sometimes install door viewers, or peep holes in doors. Many times the door viewer is used as a premium or inducement to buy a second or possibly a third deadbolt. The biggest problem the installer has had, is making sure that the hole is drilled at precisely 90 degrees to the door. If the

hole is drilled at an angle, the viewer can not be easily installed, and the customer may not like the appearance of the completed job.

To insure a "perpendicular" hole, every time, use a port-align type drill guide. They are available from most hardware stores. This drill jig will insure that your hole will be made correctly. For metal and wood doors, drill an 1/8" pilot hole through the door, then complete the hole by enlarging it with the appropriate drill size. Keep your drills sharp, and drill from both sides of the door, to avoid raising a splinter or chip as the large diameter drill exits.

Peter P. Schifferli
New York

I hope this tip will help you with the installation of peep holes. After measuring, marking, center punching and drilling the door, you are ready to install the peep hole. Here are two things that will make your installation "just a little nicer." Put a small bead of silicone caulk around under the lip of the outside flange of the peep hole. This will give a positive waterproof seal, and prevent the peep from loosening. When you tighten the peep hole, you will probably find, in the instructions, that a quarter or half dollar is used to tighten the inside eye piece. Since the half dollar is becoming more and more rare, why not use the handle portion of your Schlage D series lockset spanner. It works great and will not scratch or mar the eye piece.

Keith Smith
Pennsylvania

My Technitip is for a quick and inexpensive source of file and tool handles. The next time you retire a screwdriver because it has broken or just becomes too dull to do a good job, try this little trick. Place the tip of the screwdriver in your vise and heat the shaft slowly with a propane torch, as you pull on the plastic handle. The metal will heat up and the shaft of the screwdriver will slip out of the handle. If you want to put the handle on a file, hold the file in the vise and heat the tang until it can be pushed into the hole in the plastic handle. As the plastic cools, it will form a permanent bond with the file.

If you want to make your Kwikset cylinder removal tool easier to use, put it in the vise and heat it with the torch. Push the screwdriver handle over the heated end of the tool, as you see in illustration five. Although

Get A Grip

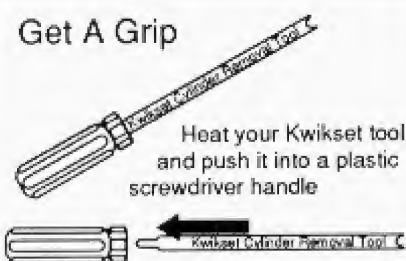


Illustration 5

the end of the tool covered by the handle is useful, the screwdriver handle helps preserve my "Palmolive hands" when keying up many cylinders.

Mary Welter
Florida

After ruining several flexible inspection lights, while hauling them in my service vehicle, I decided that there had to be a better way. This Technitip is for an inexpensive yet sturdy carrying case for your inspection light.

I used a length of 3/4" rigid plastic PVC pipe. This is the same type that is used for water lines. Cut a length of the pipe, to accommodate your flexlight, and glue a cap on one end. To the opposite end of the pipe,

attach and glue a plastic to threaded pipe adaptor. This is for a threaded cap. When complete, you should be able to slip your flex light into the tube, and screw on the cap. Push a small piece of soft foam to the bottom of the tube, to protect the lamp at the tip of the flex light. With the cap in place, your flexlight is completely protected from most damage.

If you have a vertical surface in your van and don't need the screw cap, it is a simple matter to make the tube slightly shorter than the inspection light, and attach it in a convenient place, near your opening tools and the door, for quick access. Don't forget to pad the tip of the light, to prevent the road shock from bursting the lamp bulb.

Richard Crecelius
Nebraska

This Technitip is more the solution to a specific problem than a Tip, but it may help a locksmith that has a similar request from a customer. It seems that the medical complex in our area needed a specific lockset for a patient waiting area that had a privacy function with no access from the outside knob to unlock it. It seems

that there was a problem with patients opening the door with a screwdriver, to gain access to the secretary/receptionist and records area. (Nice neighborhood.) The doctor did not want a keyed lockset, so we decided on a modified privacy lockset. The solid outside knob of a passage set was swapped with the outside knob of the passage set. The solid knob of the passage set prevented access to the lock release.

Joseph Solbach
Indiana

Editor's Note: This function used to be known as the 12 or 31 exit function, available from Schlage. It has been discontinued. There are some mechanical problems that may make this modification slightly more difficult than simply exchanging knobs in the 10 and 40 function locksets. A plain knob, however, is easily replaced on the 53, entry function, to accomplish the same end. The outside knob of the 53 series will have only limited security against a screwdriver attack, unless it is "permanently fixed" on the knob shaft.

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by Tom Seroogy

'92 Accord EX Wagon

"A remote lock/unlock transmitter built in to the head of the key is available on the EX wagon."

Recently I received the type of call that I enjoy the most. One of the Honda dealers I work with lost the keys for a new vehicle that they had just sold, and they needed to swap locks with a similar vehicle. According to the parts person they could change the door and trunk locks but not the ignition; that was my job.

Of course, up to this point it confused me. If they lost the keys why didn't they just make new ones from the code? And, after removing ignitions for me to rekey over the last six years, why couldn't they remove this ignition for me to rekey?

At the dealer, I got a taste of "what's new in '92." The airbag safety restraint system (SRS) is installed on all '92 Hondas. A remote lock/unlock transmitter built into the head of the key is currently available on the Accord EX wagon. By pushing a button on the head of the key, the user can lock or unlock the car doors. This does not activate an alarm system.

To work, an encoded chip within the key must match an encoded chip within the car's remote lock/unlock system. According to the dealer, they are unable to get duplicate or uncut replacement keys with the proper encoding at this time. If the encoded key is lost, new keys, a new brain, and a new lock

set must be installed. In this particular instance, the new parts were being supplied off another vehicle delivered to the dealer by Honda.

Entering the car was similar to other Hondas. An unprotected vertical lock rod is easily accessible with a variety of tools. To open, grab the rod and lift up. (See photograph 1.) The door lock itself is mounted in the handle and has a plastic rigid pawl.



1. After wedging the door open, you can see and grasp the vertical lock button rod. Pull up to unlock door.

Making a key by code is equally as easy and similar to other Hondas. We removed the two screws holding the glove box lock. A code was easily visible on the lock casing. (See photograph 2.) While this key will work all the car locks it will not activate the remote lock system.

Our particular problem, however, was not making a key for the car, but swapping ignitions with another



2. Code number on glove box lock.

vehicle. Working on the ignition required the airbag to be disabled. Opening the hood we disconnected the negative battery cable from the battery terminal. (See photograph 3.)



3. With an airbag present, disconnect the battery first.

Returning to the car, we removed a small panel on the back underside of the steering wheel. This provided access to the bright yellow airbag

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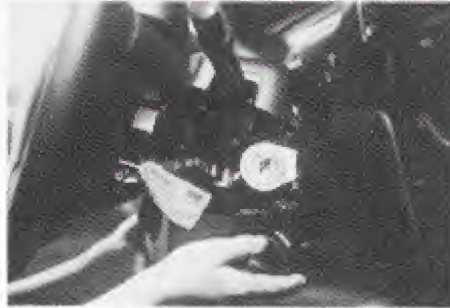
connector and red shorting plug attached to the inside of the panel. (See photograph 4.) (All SRS harnesses and associated equipment are colored bright yellow to make it easily distinguishable from other wiring.) To complete disabling the airbag, we carefully removed the airbag connector from its socket



4. All SRS harnesses are colored yellow to distinguish them from others. Shown are the airbag connector and shorting plug, and fit it into the shorting plug.

The column shroud was next on the list. Removing the screws from the bottom side of the shroud, the halves were easily separated and taken from the column. This left the ignition, turn signal assembly and wiring harnesses exposed. (See photograph 5.)

At this point there were two ways



5. Removing the column shroud.

to approach ignition removal:

1) remove the entire ignition assembly; or 2) remove the key switch portion only.

The debate was short. Removing the entire assembly could easily be accomplished by lowering the tilt column without removing the steering wheel. This allowed easy access with a hammer and scratch awl to the break away bolts located above the column. We discovered later on through the process, however, that is necessary to remove the two terminal pins from a common eight terminal connector underneath the dash area. While not overly complicated, I prefer doing less work when given the option, and did not have a terminal replacement kit should I have damaged the existing terminals on removal. Thus, we went for option

#2.

The first step was to remove the light from the lens portion of the illuminated keyway. Turning the bulb 90 degrees clockwise, the bulb easily pulled from its holder. (See photograph 6.)



6. Removing illuminated keyway light.

Removing the plastic lens from around the lock was slightly more difficult, however, and it needed to be handled gently to avoid damage. Three tabs on the lock's facecap held the lens in place. We found that pushing in on the lens while twisting counterclockwise, helped it slip off easily. Be patient.



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however. It did not happen the first time we tried. (See photograph 7.)



7. Removing the light lenses.

With the lens removed, it was easy to get to the top of the lock. Here a small retaining screw is visible just behind a pair of wires leading into the lock facecap. These wires are part of the new key system and will be explained a little later.

Because of the limited space, a needle nose vice grip pliers was used to remove the screw. Care must be taken not to damage the two wires next to this screw.

Next for removal was the key interlock system switch located directly below the lock. After removing the screw, we gently pried the switch down with a small flat blade screwdriver. This switch is present on automatic transmission vehicles only, and must be replaced properly. Our other vehicle had a standard transmission and this switch was not present. Instead, a white plastic cover was in its place, and removal was not necessary. (See photograph 8.)



8. Removing the shift lock switch.

With these parts detached, we were able to remove the ignition from the ignition housing. Placing the key in the switch we turned to the start position and then back until it

stopped at the accessory position. Then, using a right angle scratch awl, we depressed the retaining pin, located through an access hole approximately one inch behind the retaining screw that was removed earlier. (See photograph 9.)

With two cables still attached, we carefully maneuvered the Ignition out of the housing. One of the two cables was attached to a switch on the side of the ignition. We removed the screw, and very carefully pulled it up and out. This switch is the buzzer activator. It is a very delicate microswitch and must be removed and reinstalled carefully and



9. The ignition retainer is just behind the retaining screw, removed earlier, correctly to avoid damage. (See photograph 10.)

The last cable required that the

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Trade Talk...

by Marc Goldberg

Auto Club Sues Locksmith

"What could Bob have done, then, to cause a very large corporation to sue him?"

Bob Thompson, owner of AAA Locksmith Co., Inc., is a 60 year old locksmith with two retail locations in the Denver, Colorado area. Bob has been a locksmith since 1966, and he is successful in his profession. For a locksmith operation, Bob's is a pretty good size. Compare his business, however, to a major corporation, and Bob is just a little guy working hard to make a living, and trying to prepare for retirement.

What could Bob have done, then, to cause a very large corporation to sue him? Why would a major corporation, in fact, be willing to spend tens of thousands of dollars to take Bob Thompson to court? The answer may surprise you. Bob Thompson, whose business has been named AAA Locksmith Co. since 1975, is being sued for trademark infringement by the American Automobile Association, Inc., otherwise known as AAA.

Coincidentally, many years ago, Bob used to accept subcontract auto work from the American Automobile Association. In 1975 he decided no longer to perform subcontracting for the auto club. And, according to Bob, around that time he informed officials at the Denver auto club office that he wished to change his name from J & R Locksmith to AAA Locksmith Co. Bob says the official he spoke with told him the auto club would not have a problem with his name change since he would be operating as a locksmith, not an auto club.

Somewhere along line though, something went wrong. In July 1991, Bob received a letter from the American Automobile Association's chief attorney. In his letter, the attorney informs the locksmith that the auto club owns the federal trademark "AAA." The letter states that the auto club was recently provided with a copy of the locksmith's yellow pages advertisement, and that AAA Locksmith Co., Inc. must immediately comply with the following:

"Discontinue use of the 'AAA' designation and any other name or mark confusingly similar to the AAA trademark; destroy all materials displaying the 'AAA' designation, including signs, advertisements, forms and stationery; agree to permanently cease all use of the 'AAA' designation; and immediately provide written confirmation of your discontinuance and destruction of materials."

Sounds like a pretty serious situation for Bob Thompson, doesn't it? However, it is quite possible that Bob may just be one of the first locksmiths to be challenged by the American Automobile Association. A quick review of the subscription files for *The National Locksmith* magazine shows approximately 100 different locksmith companies around the country going by the name AAA. At this time, we do not know whether the auto club will begin suing all or some of the companies

using that name.

Bob Thompson argues that he should not have to change his company's name, and that he is not infringing on the auto club. He says, "I told them that I had no intention of using their logo or their trademark. And I told them that they do not own the alphabet." However, Bob also says that to avoid trouble, he did offer to change his name if the auto club would pay for the expense of doing so. "I was willing to change my name if they would pay for new signage, stationery, forms, repainting my trucks, and that sort of thing." The auto club, he says, refused to pay the sum of \$25,000 which he requested. Therefore, he has decided to fight them in court.

"There are many locksmiths who could get knocked off by large corporations claiming their federal trademarks are being infringed upon," says Thompson. "I would like to fight this all the way because there are hundreds of locksmiths who will be next. But AAA is a giant and it will be hard to fight them."

The locksmith notes that he has had good insurance in place for many years, and that his insurance companies are expected to pay at least a portion of the cost to defend him in court. And he has dedicated a large sum of money in addition to cover his legal fees. "My wife and I have committed \$20,000 to defend this along with what my insurance company will pay. But I am 60 years old and I want to retire. My attorney says it could cost \$60,000 to defend this suit. After my \$20,000 is spent, I will have to roll over and play dead if the insurance won't cover the rest."

Bob says he is prepared to fight this suit though. He says, "I would rather put the \$20,000 into fighting AAA, rather than spending that money on new signs, new ads and other stuff to change my name." He also mentions another reason to fight the suit. "They picked me as a test case and if they squash me, a lot of other locksmiths will be next."

Scott Havlick is one of the attorneys defending Bob in the lawsuit. Havlick states that the auto club's ability to defend their trademark may have been weakened over the years. "Since 'AAA' is used by so many businesses in so many industries, I think their mark is really weak. I think they can only defend that use in areas where they have been specifically using it by offering goods and services. I think the court is likely to draw the line here."

Havlick offered a suggestion to locksmiths so that they may receive financial help in fighting suits like this. He recommends that locksmiths carry business insurance which cover them for "advertising injury." This type of coverage will protect a locksmith who gets sued for trademark infringement. Havlick cautions that you should

Padlock Service...

by Robert Sieveking

Rekeying Almont

"The Almont padlock is a locksmith's padlock. It is available in a number of popular keyways."

The Almont rekeyable padlock has been a popular item in our shop for a number of years. It seems, though, that some of the newer locksmiths have overlooked the simplicity of its construction and the ease with which it can be serviced. Service, after all is the locksmith's primary "stock and trade." With a little instruction, and some practice, this padlock can be recombined in only about 60 seconds. That's right, just about a minute to completely disassemble, dump the pins, install new pins, lubricate, and assemble the lock. But, that time can only be achieved if you have the right tools and follow a few simple instructions. Like most tasks the locksmith is called to perform, there is always certain "specific information" that makes the job either very easy or very difficult. Hopefully you will find some information in this article that will make the job very easy.

What special tools will you need? How can the padlock be disassembled? Why purchase padlocks "zero blitted?" What do you do, if you drop the top pins? Is there any way to load the springs and drivers without the loading tool? Why is it so important to drop the top pins in a master keyed cylinder? Are there some principles here that can be applied to servicing other lock cylinders?

The Almont padlock is a locksmith's padlock. It is available in a number of popular keyways, to make it keyable into existing standard lock systems and master systems. Almont padlocks are ball locking and key retaining, which means that there is no way to shim the shackle bolt, and it cannot be left in an unlocked condition without the key in the keyway. A solid and dependable padlock, you probably won't find it in the discount and hardware market. This is because it

requires "service" along with the product, to make it useful to the end user. The locks are "zero blitted," from the factory, which means that they are keyed to all zero cuts. This allows the locksmith to combine the padlock to the customer's key and duplicate his key over the "zero blit" keys that accompany the lock, though I am sure that there are more keyways, I am aware of keyways 1, 2, 3, 5, and 30. They will interchange with Yale, Kwikset, Schlage C, Segal, and Schlage C thru K respectively.

The only special tools required, to service the Almont Re-Key padlock, are a wire retainer and a top pin loading tool. The wire retainers are specific to the body size of the padlock, either 1-1/2" or 1-3/4" body width. They are not interchangeable, so be careful to select the right one when you begin to disassemble the padlock. The reloading tools are specific to the keyways. This means that the Yale reloading tool will not work for the Schlage keyway padlocks, and the Kwikset tool will not work on any other. The pin spacing, which is the center to center distance between the combining pins and the distance from the shoulder to the first cut, are different enough to make interchangeability of the tools impractical. You'll need the correct loading tool for the padlocks you service.

When a working key is used in the Almont Re-Key padlock, it is rotated about 80 degrees to the right, as you see in photograph one. This releases the locking balls, and allows the shackle to spring open. The plug, and so the key, are prevented from being turned further by a stop pin inside the padlock. If the working key is modified, as you see in photograph two, it will bypass the stop pin and allow the plug to be rotated farther than was possible with the unmodified working key. By



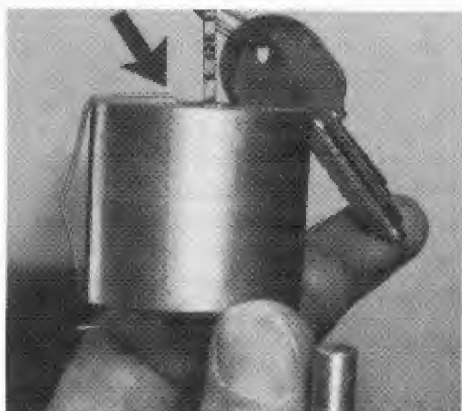
1. Rotate the notch to vertical.



2. A modified working key shown in #2.

rotating the plug 95 degrees, the notch in the face of the plug, indicated in photo 1, will be vertical. This brings the notch or access hole into alignment with the top pins or drivers. Because these padlocks are always purchased "zero blitted," it is only necessary to have one modified key for each keyway. We keep the plug removal keys, on one ring, together with all the other Almont service tools.

Because we are working with a plug in a blind hole, there is no way to follow the plug out of the body of the padlock, and retain the top pins. A wire retainer is used to "keep" the top pins as the plug is removed. Slip the wire retainer into the access hole, after the plug rotated 95 degrees with the modified working key. Photograph three shows the wire retainer applied to the padlock. The arrow is calling your attention to the bend in the wire retainer. The retainer is not fully seated in the



3. Wire retainer on the padlock.

padlock if you can see under the wire. Removing the plug, with the retainer in this position, will allow the top pins to shoot out, and require reloading. The wire retainer, when properly installed, will fit into a tiny hole at the rear of the plug. The wire tool is not strong enough to retain the top pins and springs, unless it engages the hole at the rear of the plug. Photograph four shows the wire retaining tool properly seated.

With the retainer in place, the plug slips out of the padlock body as you see in photograph five. The zero blitted key is not, in some cases, very good at "pulling" the plug. If the key binds on pulling, or slips out of the plug leaving the plug in the lock body, tap the bottom corner of the



4. Properly seated wire tool.

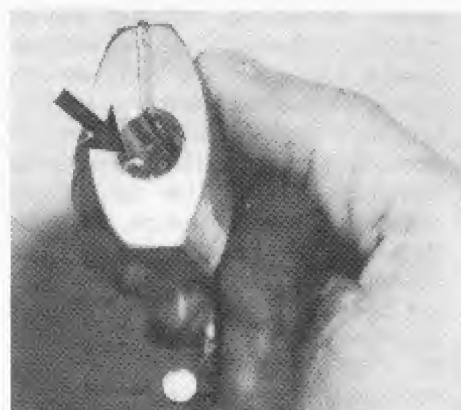


5. Removing plug from padlock body.

padlock on a padded portion of your workbench to start the plug out, then pull the plug out with your fingers. Don't turn the plug with the key, while pulling it out of the lock body or you'll dislodge the wire retainer and loose the captured top pins. Photograph six shows the function of the modified key. The



6. The spine removed from tip of key.



7. Arrow indicates stop pin location.

spine of the key is removed from the tip of the key, 3/8" back. This prevents the stop pin, indicated in photograph seven, from restricting the rotation of the plug and preventing the plug from being removed. This photo also clearly shows the function of the wire retainer. All the top pins can be

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seen, captive under the retainer wire.

A new padlock would be combined, lubricated, and reassembled at this point. But, what if you lose (drop) the top pins while disassembling the padlock. Or, possibly you are recombining a master keyed cylinder. I am a believer in removing the top pins when servicing master keyed cylinders, "always." Save a problem, check your drivers to remove any master wafers above the shear line, and replace the springs if they are not what they should be. It is essential that you check the upper pin compartment, as the plug will be installed "without the key." If you "over pack" the pin stack, you will not be able to insert the new working key, and the blind plug will have to be "picked" to remove. If you know the cylinder is only keyed to one key, the wire tool is nice because it allows you to easily check the drivers. Count them, to be sure none have slipped out as you removed the plug, or become fouled, stuck, or jammed due to dirt, oil/varnish residue, or a combination of the two. If you remove the top pins and springs, you will need to re-load them, the tool shown in photograph eight is a

reloading tool. The tool is in three parts. A complete re-loading tool consists of: 1. the shell or sleeve, 2. the plug, and 3. the slide or packer. The top pins or drivers are loaded into the plug first, as you see in photograph nine. The plug is drilled for six positions. If you are using a five cut key, load only those positions you are using. Load the springs over the top pins, and you will be ready to assemble the sleeve over them. Compress the springs, as you see in photograph 10, one at a time, as



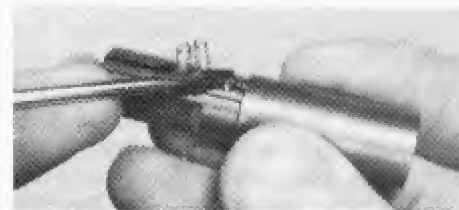
8. The reloading tool.



9. Loading the drivers into the plug.

you slide the sleeve over the plug. Photograph 11 shows a loaded tool.

Be sure the ball bearing that is retained by the wire retainer is in place at the bottom of the padlock, then insert the loaded re-loading tool into the padlock, as you see in photo 12. Note the position of the "notch" in the tool, with reference to the body of the padlock. It is important that the springs are not aligned with the upper spring compartments as the tool is slid into place. Use the square end of the



10. Compressing the springs.



11. A loaded tool.

Continued on page 39



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Continued from 36



12. Loaded tool inserted in padlock.

slide (or packer) to push the reloading tool "straight in," as shown in photograph 13, without turning it.



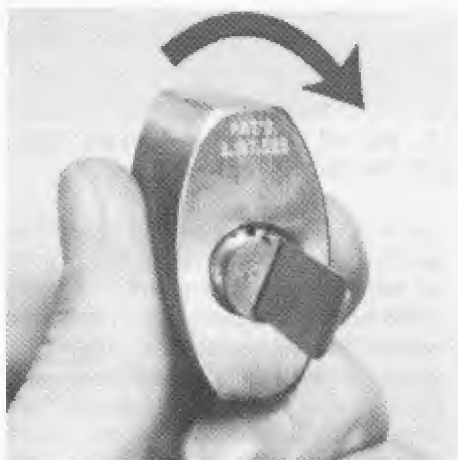
13. Pushing the "packer" in.

The sleeve will be pushed off the plug body of the padlock, as they cylinder captures the top springs. Be careful to keep the slide in contact with the bottom of the padlock as the plug is pushed into place. With the plug in place, rotate the plug "counterclockwise" approximately 15 degrees. You will feel and hear the springs as they are released into the upper pin chambers. All that remains is to force the drivers (top pins) above the shear line and rotate the reloader to accept the wire retainer.

Insert the tapered end of the slide into the plug. You may need to wiggle or lift slightly on the plug to start the first pin above the shear line. As the slide is pushed into the plug, all the drivers will be forced above the shear line. Rotate the plug, as you see in photograph 14, to align the notch/access hole in the plug with the top pins, and insert the wire retaining tool. Photograph 15 shows the wire retaining tool properly installed. Don't forget to make "certain" the tip of the wire tool engages the hole at the rear of the plug. If you miss, you will get a chance to use your re-loading tool again. Remove the plug of the re-loading tool from the bottom of the padlock, and check the top pins. Count them, to be sure all are properly positioned.

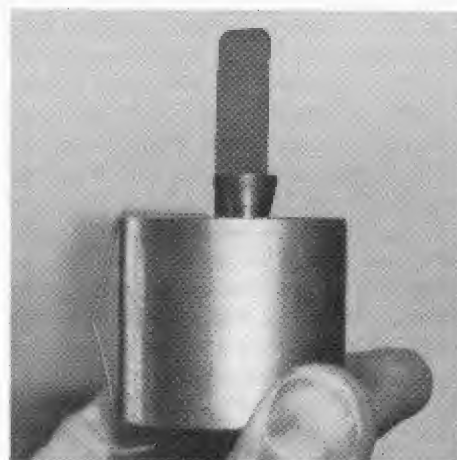
If you do not have a loading tool, you may need to use this little trick. It will work in a pinch, but has the drawback of leaving top pins in the cylinder that will not be across the shear line where a zero cut is present

in the key. When the key is removed from the plug, the pin stack (total combined height of the bottom pin and driver) will bring the top of the



14. Rotate the plug clockwise.

driver flush with the outside diameter of the plug. (See photograph 16.) If you have no zero cuts, this will not be a problem. Load the lock plug with



15. Be sure the tip of wire retaining tool engages the hole at rear of plug.



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.165 bottom pins and .185 top pins. Load all springs into the upper pin chambers. The length of the springs should allow them to be completely submerged in the pin chambers. Put a little heavy grease on the ball bearing and install it at the bottom of the cylinder. This will keep it from rolling or moving out of its pocket. Hold the lock body "horizontal," so the springs are parallel with the floor and will not fall out of position. The Almont logo will be facing "up." With no key in the keyway, and the pin chambers of the plug facing up, insert the plug into the lock body. Use the tip of a key to rotate the plug to the locked position (key pull). Insert a zero bitted (uncut) plug removal key into the plug and rotate the plug to the proper positions to install the wire retainer. The key will force the drivers above the shear line and allow the plug to be rotated. Remove the plug and replace the .165 pins in your pin kit. These dimensions work well with the Schlage keyway padlocks, but you may need to experiment with the bottom pin length for other keyways. The principle should be fairly self explanatory.

With all the drivers re-loaded, we



16. Top of the driver shown flush with the outside of the plug.

are ready to complete our assembly. Because my key machine is handy to where I pin cylinders, I always "wire brush" the plug with a fine wire wheel. This will remove any burrs and almost polish the milled grooves and slots in the plug. The cylinder will assemble easier and work more smoothly if you remember this little point.

Install the combining pins which compliment your change key as you see in photograph 17, and set the plug aside. Load the shackle spring, and shackle into the top of the lock body and drop the second locking ball into the cylinder. It should fall into the pocket at the bottom of the cylinder if you hold the padlock as you see in photograph 18. The shackle is at the bottom of the lock



17. Combining pins installed.



18. Dropping the second locking ball into the cylinder.

case when it is held properly. When you set the the lock body aside while keying, always set it on the bench in this position. This will prevent the



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locking ball from escaping while you pin the plug.

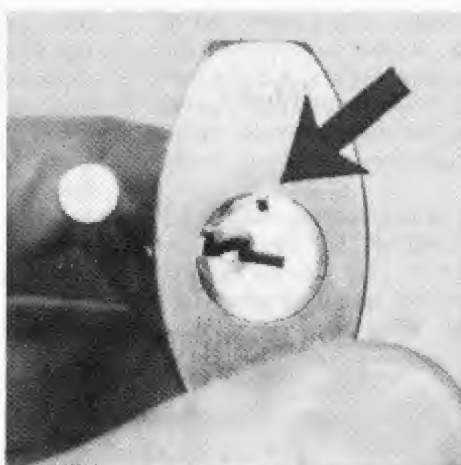
Remove the key, and lubricate the plug with a little graphite. This doesn't mean fill all the holes, or roll it in the dust like a piece of fried chicken. A little trick that works well, is to put a small camel hair artist brush in your graphite container. When you want to lubricate a plug as you assemble the cylinder, use the brush to dust a small amount over the pin holes. The graphite will be at the shear line, where it belongs. This will also save wasting graphite all over everything with a puffer, and you won't be breathing that deadly black cloud.

Install the plug into the body of the padlock, as you see in photograph 19. As you remove the wire retainer, the plug will be in the position you see in photograph 20. Close the shackle, to lock the padlock, and rotate the plug to the key pull position with the tip of a key. Insert the key and check the lock for smooth operation.

For a 60 second operation, there sure are a lot of Tips here. The wire retainer concept, that we used in this operation is also applicable to profile cylinders. You'll need to make a custom wire tool for the cylinder,



19. Installing the lock into the padlock body.



20. The plug in the correct position.

and modify the back side of a working key. I also used the wire retainer trick a number of years ago to recombine some Yale push locks for sliding cabinet doors. Good luck. §



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Continued from page 42

Corbin & Russwin's Easy Installation

Corbin & Russwin makes door closer installations easier by providing a unique mounting bracket that is fastened to the door prior to attaching the door closer. Made of steel for extra strength, the mounting bracket simply and securely holds the door closer.

For many installers, an eight pound door closer can be rather heavy to install. However, the Corbin & Russwin 6 oz. mounting bracket is easily held, enabling installers to more quickly install each closer with less fatigue. The mounting bracket offers a more level and accurate door closer installation which helps to ensure years of trouble free service.

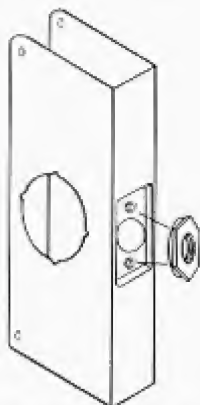


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Don-Jo Presents IW Series Plates

Don-Jo Mfg. has recently announced the introduction of their new IW series of wrap-around plates, designed for use on interior doors. Manufactured from a unique prefinished steel brass plated material, the IW series looks just like the solid brass wrap-around but gives you the strength of solid steel.

All 1-3/4" thick IW wrap-arounds are supplied with a beveled front for a tighter door fit.



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Dor-O-Matic Expands Line

Now it's the law. Virtually every public building in the U.S. must provide adequate access for the handicapped. To help, Dor-O-Matic has introduced Sr-Swing, a new handicap access door operator that has been engineered to meet any and all accessibility requirements.

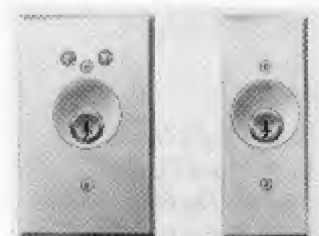
Sr-Swing is easy to install in new or existing buildings. The unit is entirely electro-mechanical. There is no need for air compressors or tubing.



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Dortronics' Security Key Switch

Dortronics Systems, Inc. has introduced a new line of mortise cylinder security key switches in a wide range of contact forms and operating modes. The 5140 series switches accept both 1-1/8" and 1-1/4" mortise cylinders and are field adjustable to provide proper actuation with most regular cylinder cams. The 5141 series assemblies are available with the choice of a standard 1-gang stainless steel switch plate, for wall or surface box mounting, a narrow 1-3/4" switch plate, for frame mounting, or a 1-gang aluminum plate with neoprene gasket, for weather-resistant mounting to a suitable surface or flush electrical box.



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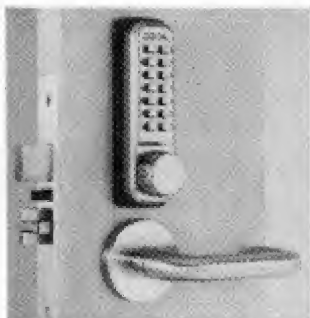
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DSI Introduces Digital Cylinder

Door Systems, Inc. introduces the digital mortise cylinder, model 205M. The 205M is capable of interfacing with a wide variety of manufacturers' sectionally trimmed mortise locks, such as the Schlage® L-9000 series where it is adaptable to 12 functions. The Digital 205M is shown installed with the Schlage L9453P-03B (ANSI F20/FED 86A).

Perfect for new mortise lock installations, the Digital 205M can also easily convert existing mortise locks into heavy duty, mechanical, keyless, pushbutton access controls.



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Dorma's 640/650 Door Closer

To offer a simple solution to accessibility code compliance, DORMA has enhanced its 600 series door closer line to include adjustable spring power and a resized closer body which greatly expands its retrofit capability.

The newly engineered line features two ranges of spring adjustment. The 640/650 is adjustable from size 3 through 6, primarily for exterior doors, while the 641/651 can be adjusted from spring sizes 1 through 4 for accessibility applications on both interior and exterior doors.

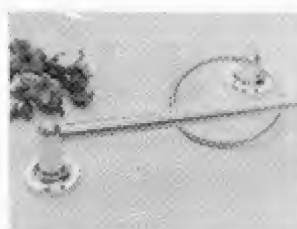


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Franklin Brass's Bathware Collection

Franklin Brass Manufacturing Company introduces the Astra Collection, a truly contemporary collection made of zinc die cast with concealed mountings. Astra is available in four finishes: polished brass, polished chrome, black and white.

Franklin Brass offers a complete line of American-made bath accessories in chrome, brass, ceramic, acrylic and wood, including grab bars, designer towel shelves and commercial items.



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Gainsborough's Decorative Hardware

Gainsborough, a manufacturer of porcelain door hardware, presents its collections of decorative door hardware.

Their extensive product range includes porcelain, lead crystal, solid brass, stoneline, timber, and metalline knobs and levers.

Accessory lines to compliment their passage sets include bi-fold knobs, cabinet knobs, switchplates, and fingerplates.

The comprehensive range of entry handles, keylocks, and trims add the final touch of elegance to any home.

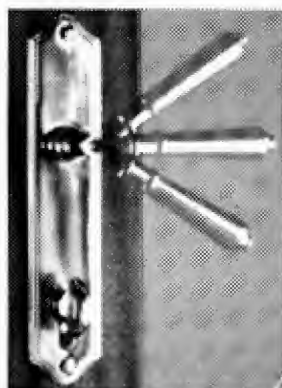


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G-U Hardware's Multiple Hardware

There's beauty in security, and this is seen in G-U's multiple lock door hardware. Ideal for French, Atrium type, and entry doors, multiple lock door systems are the industry's hottest item.

These systems are complimented by G-U's forged brass levers and escutcheon plates.



For FREE Information
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'92 H.E.S. Electric Strike Line

The new Hanchett Entry Systems, Inc. 1003 series heavy duty electric strikes have been redesigned to enhance their universal construction. Each of the 14 different models are fully interchangeable, non-handed and can be installed in hollow metal, aluminum or wood jambs.

The 1003 series is able to accommodate most every type of lockset designed to utilize the 4-7/8" jamb cutout. This includes providing the proper alignment for releasing mortise locksets with or without a 1" deadbolt.



For FREE Information
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IntelLock Expands IntelLockSmith

IntelLock Corporation has announced it will be expanding its innovative IntelLockSmith Program from 200 to 500 locksmiths during 1992. The IntelLockSmith Program was developed by IntelLock to provide locksmiths with technical support, marketing programs and customer referrals through a national database of locksmiths and a toll free 800 number.

IntelLock memberships are limited within market areas.

IntelLock electronic locks and deadbolts have become extremely successful in the residential market, and Tom Corder, IntelLock's president has announced that IntelLock will also be introducing a ProIntelLock model with a 6-pin brass cylinder and other product enhancements in 1992.

For FREE Information
Circle 305 on Rapid Reply

Jado Presents Super Latch

Jado U.S.A. introduces Super Latch, the only latch designed for lever strength function. A mere 18 rotation gives full latch retraction making it easier than ever to lock doors.

Super Latch is subjected to durability tests that are quite demanding. Before approval, Super Latch, must survive a regimen of 200,000 cycles. Adding more strength to the Super Latch endurance claims is a lifetime mechanical warranty.

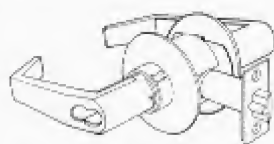


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Liberty Cylindrical Lever Lock

Liberty Hardware Manufacturing Corp.'s cylindrical lever lock set is a solution for motels, apartment houses, public buildings or any project where security, esthetics and cost are an important factor. Liberty's Grade 1 and Grade 2 lever handles comply with the new A.D.A. code and are available in both interchangeable core models which can be supplied with or without combined cores.

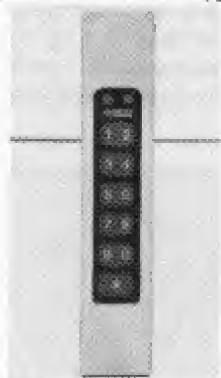
Conventionally keyed models are available in a wide range of 23 different keyways and are available master keyed, grand master keyed, keyed alike, keyed different or zero bitted. A full selection of functions are available and all are available in US, 3, US10B, US 26, US26D, and US 10.



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Locknetics 770 Smart Entry™

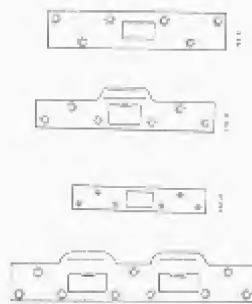
The new 770 Series Smart Entry™ Access Control System consists of two major components: a heavy duty digital keypad and a versatile CPU controller. This system is compatible with virtually all electronic locking devices and is engineered for interior and exterior use. Designed with a narrow, low profile, the attractive keypad can be used in a myriad of applications. The versatile CPU controller offers multiple mode capabilities, programmed from the keypad.



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M.A.G.'s 700 Series Strikes

The 700 Series line of security strikes from M.A.G. Eng. & Mfg., Inc. has high quality design and finish for long-lasting security. All screws are hardened phillips head type that provide for easy installation with power drivers. The superb visual packaging creates maximum sales. These strikes are available in brass and chrome finishes and accommodate standard door frames.

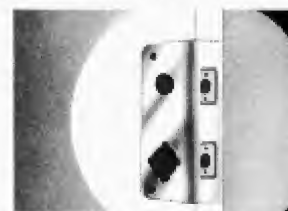


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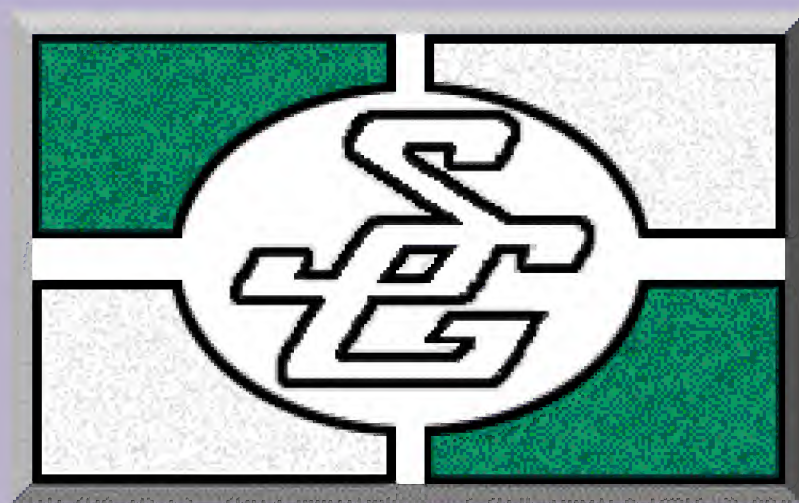
Magnokrom Offers Special Prices

Magnokrom would like to thank the subscribers of *The National Locksmith* for the tremendous response to their Door Saver advertisements. The amount of inquiries into their line of door and frame accessories has been outstanding.

To show their gratitude, they are offering, for a limited time, U.L. listed, stainless steel surface bolts at a very reasonable price. This item is useful for locksmiths to ensure both safety and security on all types of openings. They are also making available the 1900 narrow stile exit device. This device can be used on hollow metal, wood and 1-3/4" stile aluminum doors.



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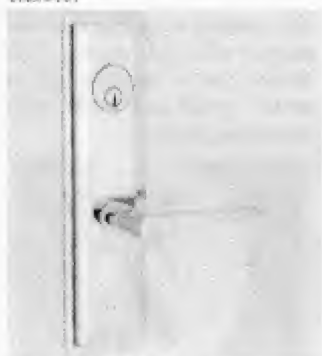
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Marks USA's Designer Series

The Designer Series locksets from Marks USA include mortise and tubular, and feature thru-bolted, self-aligning trim for ease of installation.

The Towne, Royale, Madison and Plaza Series are the designs offered. All designs are in mortise and tubular locks with matching bell plates. Handle, knob and lever trim with roses or escutcheon plates styles are available. Polished brass, polished chrome and black nickel are among the finishes as well as "special order shades."



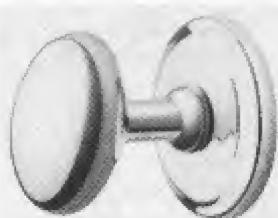
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Master Adds "Olivia" Knobset

Master Lock has expanded its designer series collection of door hardware with the opulent Olivia leverset. The Master Lock Designer Series is the first door hardware marketed under the Master Lock name.

Olivia's elliptical elegance is a graceful punctuation to any room. An uncommon accent, the Olivia knob softens the stark angles of an entrance way. It is available in bright brass, antique brass and bright chrome finishes.

Knobs are only part of the Designer Series line; choose from leversets, deadbolts and entrance handles.



For FREE Information
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Medeco's Patriot Defends Security

Medeco Security Locks, Inc. Has introduced a new high-security lock program with its Patriot Tour '92.

This program gives locksmiths the advantage of a unique keyway, a simple yet tamper-resistant method of key control and key blank accountability, and a fast, efficient way to service customers.

The Patriot lock program uses a customer key control card to obtain key duplicates. The locksmith, by running the card through a data machine which is connected by modem to the Medeco Key Control Department, can verify and approve customer requests.



For FREE Information
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Norton's Security Door Closers

Norton® Door controls has introduced a complete line of security door closers and security arms for use in high security and heavy abuse applications.

Norton's high security closers and arms are designed for prisons, correctional facilities, government buildings, schools, financial institutions, and other installations where vandalism, abuse, escape, personal injury, or damage to doors, walls, and hardware are major concerns.

The Norton series 7770/7570 security closers are designed for heavy duty security, and are especially useful in high security correctional institutions. They utilize Norton's full-feature, heavy duty series 7700/7500 door closers.



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PDQ Offers Quality Locksets

PDQ Industries, Inc. includes in its product line a complete selection of lever handle locks that meet the requirements for handicap accessibility.

The SX Series with FRE Freedom lever Handle is a heavy duty, Grade 1 lock. Available in a wide selection of functions and finishes, the SXFRE meets ANSI standards for Grade 1 commercial applications, such as educational facilities, hospitals, retirement homes, office buildings, and shopping centers.

Supplied with a 2-3/4" backset (2-3/8" backset optional), it will fit Federal Specification Series 161 door cutouts.

**For FREE Information
Circle 315 on Rapid Reply**

Period Brass Offers Complete Line

Period Brass is pleased to announce its complete line of architectural door hardware.

With over a thousand items in the new collection, Period Brass continues the traditional of art and excellence which began half a century ago in the foothills of New York's Allegheny Mountains on the shores of Lake Chautauqua.

Period Brass's architectural door hardware offers total interchangeability from ordering to installation. Architectural design flexibility has never been so easy, from traditional to transitional and contemporary through ultra-contemporary in a broad range of finishes and finish combinations.

Period Brass also has a complete range of mortise lock applications, as well as a complete line of cylinder auxiliary deadbolt, passage and privacy tubular latch, mortise bolt, and dummy applications.

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Personal Security's Big Jammer

Personal Security is pleased to introduce the Big Jammer Door Brace to their line of personal security products. The Big Jammer prevents an intruder from gaining access into a home or apartment through any hinged or sliding glass door. A uniquely-designed foot securely grips any standard flooring material.

The Big Jammer is built from rugged, 20-gauge steel and telescopes up to 44" to accommodate most entry doors, and fits a standard suitcase for hotel or motel use.



**For FREE Information
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Quality Wholesale Supplies Detex

Along with a complete line of door closers, panics, pivots, hinges and parts, Quality Wholesale hardware offers the Detex exit alarm. Not only do they stock the ECL230, they stock the parts and complementary products at Wholesale prices to make you more competitive and profitable.

Eliminate your hardware problems with Quality Wholesale Hardware.



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RESOURCES INC.**

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manuals, and videos.**

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The Reilor Gibcloser

The Reilor Gibcloser is an inexpensive alternative closer for interior fire doors. Made of zinc and cast steel, the Gibcloser contains a steel high tension spring that will close a 110lb to 150lb interior door. Tested and approved by UL for use on a 1/2 hour fire door, this unit was used for 100,000 closings without a failure.

Installation time is five minutes. Using only a screwdriver, drive four screws into the door jamb, screw in a roller bar, and you are done.

Available in white, gold, and brown, this product will be an attractive and practical addition to your door hardware needs.



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Rev•A•Shelf's Locking Cabinet

Rev•A•Shelf®, Inc., a cabinet accessories manufacturing company announces a new security/locking system for cabinet doors and drawers, The Rev•A•Lock®. This unique security and locking system uses a powerful magnet as its key. The Rev•A•Lock® is totally concealed when installed in kitchen, bathroom, gun liquor or curio cabinets.

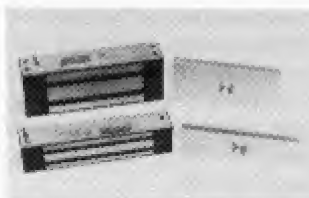
When the door or drawer is closed, the Rev•A•Lock® automatically locks. To release, place the key in position on the face of the door or drawer, the latch opens and will stay open until the key is removed.



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Securitron Highlights Magnalocks

Securitron introduces a new six page brochure covering its family of electromagnetic locks. It covers comprehensive information, pictures and drawings of the U.L. listed model 32 and model 62 Magnalocks with options, appropriate mounting hardware accessories, Magnalock technical data and ordering instructions. Also included is a section stating benefits of securing doors with magnetic force alone.

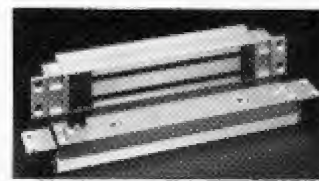


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SDC's Hi/Shear Emlocks

The Security Door Controls Hi/Shear™ EMLock® is a patented locking design of special alloy steel. It is fully concealed in the header of a door frame, and combines the best features in fail-safe performance with the most advanced features in shear lock design. The Hi/Shear EMLock has surpassed 2,700 pounds tensile holding strength, and will withstand an attack that will deform or destroy a door.

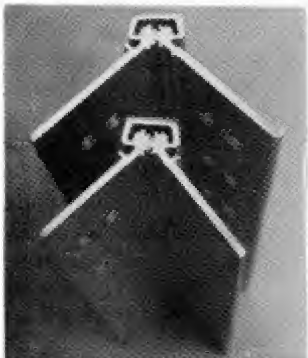
Exclusive armature lateral alignment adjustment and built-in field adjustable auto relock switch are some of the unique features in this lock.



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Select Products' Fire Rated Hinges

Select Products Limited announces the addition of fire rated hinges to their product line of aluminum continuous gear door hinges. The SL-11 and SL-24 mortise models have Warnock Hersey International listings for the following applications for singles, pairs and double egress: 20-minute wood or steel door, steel frames in drywall; 45-minute wood or steel door, steel frames in masonry; 90-minute steel door, steel frame in masonry.



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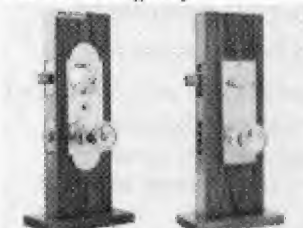
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Weiser Lock's Deadbolt

Weiser Lock's new Hotel/Motel Lockset combines numerous features to meet the hospitality industry's need for efficient management and guest security.

The cylinder of the knob is easily removed and changed without taking the lock off the door, by means of a take out key provided with the lock. This simplifies periodic exchange of room locks to prevent entry by previous guests.

Guests activate the deadbolt with a T-turn inside the room to prevent entry by any other guests or a maid with a master key, but allow for panic-free quick exit in case of emergency.



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Zero Offers Unigear Hinges

Zero's acclaimed Unigear Continuous Hinge System is now available with a three-hour fire rating. The Unigear system integrates two extruded aluminum segments in a cover channel, with support bearings of long-wearing, self-lubricating Delrin™. The hinge rotates a full 180 degrees, provides maximum shock absorption, and distributes weight evenly. The fire-rated Unigear system (#911) is approved for use with any size three-hour fire-rated steel door up to nine feet.



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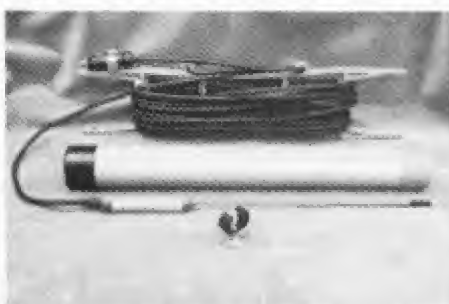
Mini-Section...

Locksmith Tools

In this section you will find information about a number of manufacturers.

AAA Products' Super Probe Light

AAA Products' Jiffy Super Probe Light is designed especially for use in car openings, but is used in all kinds of work. The light comes in a 2" diameter hard plastic protective tube about 18" long. Foam lined plastic caps are on each end, one orange and one black. Open the orange cap to remove the light. Under the black cap there is a small padded space for a spare bulb.



The Jiffy Super Probe light.

The heart of this light is the super bright halogen bulb, which is encased in high heat Teflon. It is very bright and should be inserted into the car door before being turned on. The manufacturer estimates the bulb life at 50 hours, but the light has been actually operated for more than 200 hours without burn out.

Spare Teflon encased bulbs are \$14.95. You can place the light almost anywhere in the door and still see everything, even in bright sunlight. The light comes with a small suction cup/spring clamp. You can insert the light, and the suction cup holds it while opening the vehicle. The Jiffy Super Probe Light is generally used with the Jiffy Clear View Tool which holds the door rubber back for easy viewing and working.

The Jiffy Super Probe Light operates from your service vehicle cigarette lighter with a fifty foot

extension cord on a reel available from the factory. A rechargeable battery pack, such as is used with video cameras or cellular telephones, can also be used for power. An adapter is available from AAA Products that lets you use your rechargeable battery from a Makita drill. Either 7.2- or 9.6-volt adapters are available.

The lights come in either 6 or 12 volt. The 6 volt light is used with a resistor built into the Makita battery holder, which comes with an electric cord to plug into the Jiffy Super Probe Light.

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New Key Machine Cutters By Gil-Ray Tools

Gil-Ray Tools Inc. manufactures a full line of replacement key machine cutter wheels for all popular machines. Gil-Ray sells direct to locksmiths to eliminate the extra cost of going through a "middle man." Gil-Ray precision cutters are found on many new key machines as OEM parts. All Gil-Ray cutters are American made in their Bay City, Michigan facility. Cutters are in stock for immediate delivery for all code machines and most duplicating machines including imported



machines.

Gil-Ray also has operated a mail-in key cutter sharpening service for the past 47 years.

Another new development from Gil-Ray is a decoder wheel for HPC code machines. The "Gil-Ray Key Decoder™" uses the dial indicator of the HPC code machine to quickly decode any key that the locksmith has a code card for.

It's simple and easy to insert the appropriate code card on the machine, mount the decoder wheel and start decoding keys. The angle and tip of the decoder will fit into any key that may be encountered.

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HPC, Inc.'s Manufactures Wide Line of Tools

HPC, Inc. has been manufacturing the widest line of locksmithing tools for over 35 years. HPC prides itself on its high quality products. Their picks and pick sets are no exception. Each pick is made of hand finished clock spring steel, tempered to the correct degree of hardness. Every HPC pick case is made of genuine leather, making for an extremely durable product. HPC



HPC's EPG-1.

manufactures pick sets for the novice, as well as for experienced locksmiths.

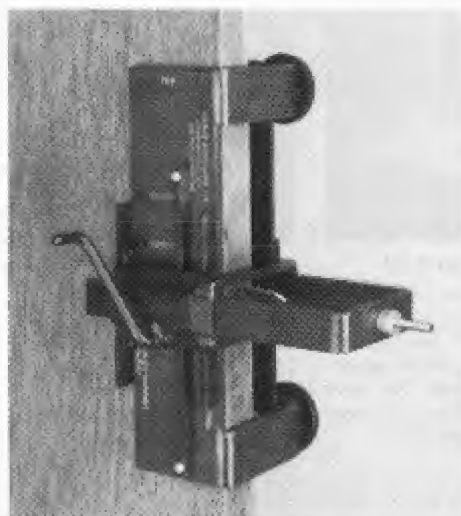
They manufacture unique pick sets as well, which also stand up to HPC's high quality standards. The KGB-1 pick set fits directly onto your belt. It comes with six new tools (3 picks, 1 extractor and 2 tension tools). The overall length of each tool is only three inches. All tools lie flat in the case, which is 3-1/2" long by 2-1/4" wide, enabling it to be worn discreetly.

Some people may consider the Electropick™ to be a novelty pick, but its speed and accuracy are proving it to be a staple in many locksmiths' tool box. The Electropick™ (EPG-1) is a cordless rechargeable pick gun which allows the locksmith to duplicate his exact raking motion at many times per second. At first some locksmiths doubted its ability to open locks, but increased interest proves the Electropick™ is no longer thought of as just a gimmick.

If you prefer the manual approach to picking, HPC's standard pick gun continues to be a favorite among locksmiths. HPC's Pistolpick™ (HPG-10) will pick pin tumbler and disc tumbler locks with ease. All parts, including the main housing are black nickel plated cold rolled steel for protection against rust. The HPC Pistolpick™ comes complete with picks and tension tool. An optional black leather case is also available.

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Marks Mortise Lock Installation Tool



J8000 Mortise Installation Tool.

Marks USA produces quality engineered mortise locksets. The installation of mortise locks has always been a frightening thought to anyone facing a brand new door that has not been prepped for this type of lock. Although there are a few tools available for mortising doors, their cost in some cases is quite prohibitive. The Mark's J8000 mortise installation tool "eases the pain."

The tool is used with a standard 1/4" electric drill for mortising 1-3/8" to 1-3/4" thick doors. Mortise depth adjustments can be made easily. In

addition, a faceplate routing attachment is available. The entire system fits into a heavy-duty, custom carrying case for portable on-the-job mortising. To make the job easier, Marks has developed a videotape graphically demonstrating the use of their installation tool. This video is packed at no additional charge with every J8000 that is purchased.

The J8000 is available from any Marks' distributor. Happy mortising!

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by Shirl Schamp

Shirl On Car Opening

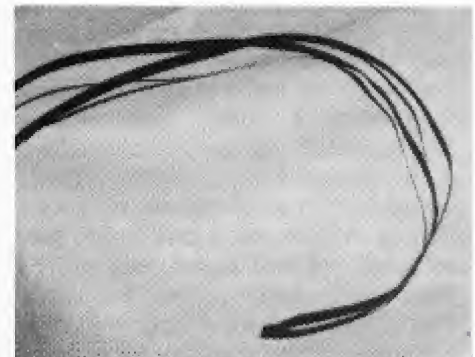
"I have been opening cars since 1957, and back then we were working on some cars from the late '30's."

As we have been doing the last couple of months, let's continue with our conversation on different approaches for opening locked cars. Yes, there are many books written showing the specific make and model car, along with an exact procedure on how to open that particular car. In fact, I have written many such books. But I am coming to believe that it is better to look at the type of locking system involved, then devise an approach based on the lock. Instead of based on the particular model car.

One of my favorite methods has long been the use of strapping tape. This is the tape used to secure boxes

for shipping. It comes in many thicknesses and widths. Experiment until you find which you like best. In fact, start scavenging around to collect as many pieces as you can. (Dumpsters in back of supermarkets are often a good place to look, if you're not too proud.)

This method will work well on those cars featuring a button placed somewhere near the window. Cut a good long piece of tape, fold it in half and crimp or crease it. (See photograph 1.) To make it work well, roll it tightly so that when you release it, the tape will maintain a natural curve. To use the tape, I recommend you first wedge the window out a bit.



1. Strapping tape as an opening tool.

Sometimes, however, to start working the tape in, all I have to do is to push

Continued on page 58



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Continued from page 56

back slightly on the rubber.

In photograph two we are using a plastic wedge so as not to scar the paint. We are barely bringing the window out here. All you need is a tiny space to pass the tape through. Once the tape is passed inside, it will naturally curve around toward the button. If it is curving the other direction, you put it in backwards. You can pull it out, turn it over, and start again.

To move toward the button, simply pull slightly on one of the two ends you are holding. One of the ends will move it into the car; the other will move it out. You can carefully work the tape over the button, looping around it. Then you slowly raise the tape, pulling the button up.

I have always found that the tape works best if the vertical button is mounted near the edge of the door like in photograph three. If the button is centered on the door, far from where your tape will enter, you might consider another method of entry. But don't exclude taping. It takes dexterity to work with the tape, but it will often open a car very quickly. In photograph four you can see where we were able to loop a button located quite far from where



2. Using a plastic wedge to slightly pry the window.



3. Ideal position for vertical button if tape is to be used.

the tape entered the door. If, however, the button is too close to the edge for comfort, then insert the tape high into the corner of the door, and after the tape is passed into the interior, work it down to the level of the button.

Moving along, many cars feature



4. Pop-up button looped with tape.

lipped windows with a horizontal locking rod. The horizontal linkage is found on cars where the button is not up and down, but rather in and out. The lip makes it hard to bring out the glass. But contrary to popular opinion, the horizontal linkage is not a new idea. Most of us tend to think this linkage first appeared in the early 1980's. But I have been opening cars since 1957, and back then we were working on some cars from the late 1930's. (Boy am I dating myself!)

I cannot remember a time when at least a few models were not using the bell crank, which is very common today on Honda's. The bell crank allows the linkage to change from one direction to another. (See

Continued on page 60

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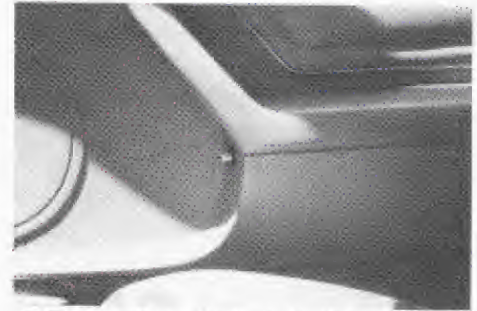
photograph 5.) On the Honda, use the flat end of a Slim Jim and go for the bell crank which is 6" to 8"



5. A bell crank, popular on Hondas.

directly below the lock. Wedge the door by placing the wedge between the glass and the door, making space into the interior of the door panel. Insert the Slim Jim bowing very slightly outward and come down on the bell crank. Push downward, rotating the bell crank which will unlock the door.

In the 1970's some of the Ford products such as the Mercury Cougar used a horizontal linkage. They placed the locking button in a position coming out from under the armrest, as viewed in photograph six. We quickly realized that we could



6. The locking button in the armrest, popular in 70's Ford products.

treat this just like a vertical button. At that time, the cam/pawl was still free floating, and we focused on contacting the rear of the pawl.

After 1980, things really changed, however. They made the cam/pawl rigid, closing that avenue of entry. But there still had to be something that floated, or you would not be able to push the button down without the key in the lock. We were forced to figure out how to contact and move whatever portion of the linkage was beyond that rigid area.

When these changes took place, my husband Norm and I were teaching classes on car opening. At a class we were teaching in San Diego, the class asked us how to open the new rigid pawl. We replied that if they could find us a car, we would demonstrate a method after lunch. They provided a Pontiac 6000. We devised a tool similar to the one in photograph seven, and it worked very well. Tools similar to this are



7. Tool devised to attack the rigid pawl

made by a variety of companies; HPC's is called the CO-39. Other companies also make variations designed for specific vehicles. But all these tools for horizontal linkages are designed to hook a lock rod and allow you to slide it to unlock the vehicle.

By 1983, I was writing car opening articles for *The National Locksmith* and one of my first articles was on how to open cars with horizontal linkage. The response from locksmiths was astounding. We were flooded with mail. Today, opening these cars is no trouble. To use the tool, place a

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Continued from page 60

wedge between the glass and the door. If you like, you may insert a flex light into the panel to help you view the locking rods.

What you will see is two horizontal rods, one over the other. In most cases, the locking rod is the top rod. The bottom rod is ordinarily the door handle. This is only a general rule of thumb. An exception is the Subaru where the bottom rod is the locking rod. If you accidentally hook the wrong rod, no harm is done. You will be able to identify the fact that you are on the wrong rod because when you move it, the inside door handle will move a bit.

Wedge the door and insert your tool as in photograph eight. Rotate or twist the handle of the tool as soon as you have cleared the bottom of the glass. This points the hook inward toward the rods. Lower the tool until it stops. It should be sitting on top of the top rod which is normally the locking rod. Now, without losing contact with the rod, pull back a bit and lower the tool slightly to roll the hook under the rod. Then bring up the tool, catching the rod with the hook as in photograph nine. Twist the tool slightly to bind the tool to the rod. Then in most cases, you slide the tool toward the front of



8. Wedge the door and insert the tool as shown.



9. Contacting the locking rod.

the car, unlocking it.

On the Safari or Astro vans there is a necessary variation in this procedure. The rods are closer together and are not exposed except for a two inch area right next to the latching unit. (See photograph 10.) You must place your wedge about five or six inches



10. Close rods create less accessibility.

from the window frame on the latch end of the door. Insert the tool about two inches from the window frame. If you have trouble, you can cut about a quarter of an inch off the tip of the tool making the hook shallower. The rods are so close together that sometimes it can be difficult to get between them.

After you have hooked the rod, slide the tool along the rod as far back as you can. Do not move the rod as you are doing so. Twist the handle, binding the tool on the rod, and move the rod forward to unlock the van. It is important on these vehicles to start the rod movement from as far to the rear as possible.

We will finish our discussion of opening cars with horizontal linkage in the next article. Then we will move on to talk about other opening methods. §

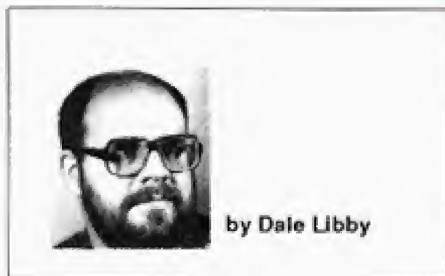
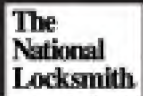


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by Dale Libby

Opening Protector Safes

"The exact same safe may be made under any different number of names as they are imported,"

The Protector firesafe from Sisco is an imported safe which may be manufactured in Korea, Japan, Taiwan R.O.C. or many other Eastern countries. The labor is inexpensive and the workmanship is respectable.

They come in all colors and sizes, but the one common factor they share is a pin key tumbler lock and a combination dial. They may or may not have an operating handle. In safes without the handle, the key acts to retract the bolt bar.

These safes are labeled by the respective company importing the units. Thus, the same exact safe may bear any number of names, both American and foreign. No matter what they say on the outside, they are all the same on the inside. To a locksmith that means they all can be attacked in the same way.

Regardless of their name and size, these safes that use the pin tumbler cam lock and the imported keyway, utilize the direct drive mechanism that many ancient safes and modern Sentry Safes still use. This is a valid safe locking mechanism, however, the security it provides is minimal.

This type of direct drive-contact safe locking mechanism yields easily to manipulation. When you put pressure against the safe handle or on the operating key, you can feel the edges of the drive and combination wheels when the dial is turned. The dial will click or jump when a gate passes under the end of the bolt bar. Pressure from this bolt bar is easily felt through the dial and can be graphed.

Manipulation. This safe mechanism may add another dimension to direct drive combination lock manipulation. In the past, from ancient to modern, the wheels of these locks, were square cut. Both edges of the gate were parallel with each other.

To manipulate this type of safe,

you should attach a wire or something similar to the end of the handle and graph how far it moves to the left or right. When the wire moves farther in one direction, it is indicating that a gate is in proper alignment with the drive wheel gate. All you have to do then is to formulate on which wheel the gate appears, and insert it in the proper place in the unknown combination.

These newer type safes have gone one step farther. If you understand the problem, then you can adapt newer ways to defeat the safes. The first improvement was to remove the opening handle and replace it with a key lock. It is harder to attach a marking mechanism to a key, and easier to break the key if too much force is added when going for pressure readings.

This can be remedied by just picking the lock and using a stiff tension tool instead of the key. I have found that these locks pick rather easily and most pick to the right. Reading, however, is still difficult but there is another way to defeat these safes.

The wheel gates on these locks are square cut as traditional Sentry wheels are cut. They are angled somewhat like wheels on a Group II combination lock. They also manipulate in a similar way. Instead of dealing with a depth measurement, we are dealing with a gate reading, as in more advanced locks.

With this type of manipulation, the gate reading will narrow. The left and right contact point reading actually gets smaller or closer together when a wheel is under the bolt bar. Some of the pressure readings on these safes are impossible to get with only a key to put pressure on the wheel pack, but safes readily yield to basic "contact area reading manipulation." This is a result of the non-square cut on the

wheels.

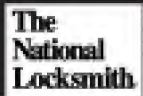
Drilling. Drilling these safes open is quick and easy, and I usually use a battery operated drill to penetrate the sheet metal. Some say that drilling a safe may not be "professional," but it gets the job done. These units are priced lower than most of my manipulation charges, and I give the customer the choice of drilling or manipulation, with the appropriate charges for each. I also explain the time and repairs charges if needed.

I was called to a lawyer's office to open a safe in an emergency situation. He wanted his Sisco Protector Model 1080 opened and was not interested in manipulation. Just fine. I told him I could open that safe in about five minutes and that I would have to drill a 3/16" hole to accomplish this. The repair would be a pair of inside and outside pop rivets. "Fine, fine, fine, just stop wasting my time," he told me.

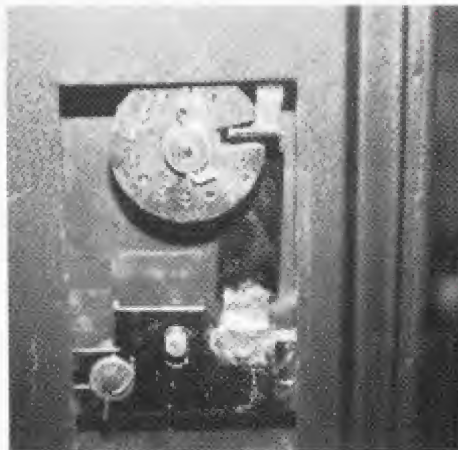


1. Outside view of Protector safe. Note the key lock below the dial and the fire safe TESTED label.

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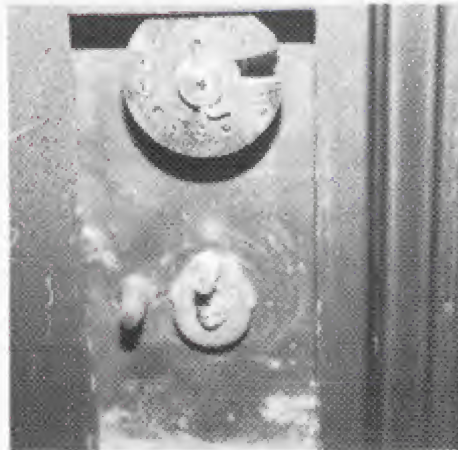
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2. Inside view of the safe in the open position. Cam lock below the dial pulls the single bolt bar into the wheel pack.

Since he charges more an hour than I usually do, I complied quickly. On this type of safe, the mechanism can be either horizontal or vertical. A Sentry mechanism is horizontal. This unit had the dial over the key, thus indicating vertical. (See photograph 1.)

I could have drilled at 75 (9 o'clock) and gone for a direct read, but that was compromising security too much. I drilled in at 50 (6 o'clock) just outside the dial ring. The



3. View of the cam lock and wheel pack with the bolt bar removed for better viewing. Shape of gates in the wheels can be easily seen.

correct angle is straight ahead and in. You do not have to angle the drill. The dial is the same size as the wheel pack. (See photograph 2.)

You will have to penetrate the inner and outer sheet metal with a thin layer of insulation. Take the reading at the hole and transfer to the opening position (Non-Numerical Transferring) You don't need to add and subtract to transfer.

These units have three wheels and a drive wheel, thus four numbers in



4. Lower view of wheel pack with drilled hole below wheel pack. Inside and outside hole were repaired with pop rivets.

the combination. (See photograph 3.) To change the combination, just remove the drive wheel and change the position of the drive pin. The other wheels have fixed gates, and the only way to change them is to take the wheel pack apart and shuffle and turn over some of the wheels. (See photograph 4.) Reassemble and view to determine the safe combination.

Open and Prosper! §



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by Carl Cloud

Bank Heists & Burglaries!

"As a safe technician I am always interested in stories of successful attacks by burglars."

Burglaries of bank vaults have shown the tenacity and creative imagination of those seeking the quick road to riches. Their methods of entry are not limited by rules and regulation or standards of ethics. They have no concern of laws restricting the use of explosives or other hazardous materials. They are not governed by a contractor's license, OSHA requirements or health and safety codes. They freelance it; whatever it takes to do the job.

As a safe technician, I am always interested in the method of a successful safe attack by my counterpart in the criminal world. Let's face it, some of these people are pretty sharp. Occasionally, you'll find an ingenious method of entry. More surprising, many of our present day "legal" techniques used to open safes were derived from the trial and error of these adventurous underworld safe crackers. Not all methods of bank vault entry are usable in the real world of the safe technician. For example, the entry into The Brinks Co. vault in Syracuse, NY.

Jack Frank and Joel Singer were the masterminds of this 1965 vault burglary. Frank purchased two World War II, 20mm anti-tank guns with 200 rounds of armor piercing ammunition. The intent was not to protect their homes from an enemy tank attack. Their thoughts were of creating a large hole in a very thick concrete wall!

Frank, Singer and three accomplices broke into the Brinks warehouse on a stormy Saturday night. After defeating the alarm system, the men conquered the three bullet resistant doors leading to the vault room.

The 100 pound, 7-1/2 foot gun was lugged into the room containing the vault. The distance from the back wall of the room to the front wall of the vault was twelve feet. This meant the gun's muzzle was only four feet away from the vault wall...a point blank shot. The trigger man huddled behind a water soaked mattress as the first shell fired.

The roar of the gun was deafening.



"The Track of the Despoiler." Photo from *Lure of the Lock*.

The concussion was numbing. The exploding shell sent pieces of concrete, stone and shrapnel rocketing in every direction. An inspection of the damage to the wall showed only a three inch deep cavity. Undaunted, the firing continued. The room filled with the stench of burning gun powder and dust. The process revolved from firing the gun and then removing the exposed reinforcing steel bars with an acetylene cutting torch.

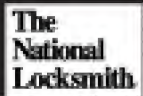
The neighborhood was a commercial area with a few single story homes. People living near the Brinks Warehouse did hear some of gun firing. The night was stormy with occasional thunder claps. Most people assumed the noise originated from the storm.

Once a small hole was created through the wall, the use of the gun was continued to enlarge the opening. Fragments of the exploding shells and

pieces of concrete now slammed into the vault. The result was destruction of thousands of dollars in coins and a considerable amount of the currency. A total of thirty three shells were fired to create a two foot opening through the wall. The amount taken from the vault was \$433,587. Only \$166.35 was recovered from the robbery. The rest of the money was never found. The apprehension of the five members of the "Brinks Gang" took place within the year and all were jailed.

Needless to say, I don't think any of our customers would agree to the wielding of a 20mm cannon in their bank lobby. Or in that respect, any type of explosive. But explosives have been used to pillage a bank vault. The vault of United California Bank of Laguna Niguel was penetrated in such a manner.

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Amil Dinsio flew from Cleveland Ohio to Los Angeles with one thought in mind: find a bank located in a rich, high society neighborhood. The United California Bank was perfect. The bank was at the end of a shopping center, with its front windows facing away from the main adjacent street. The site of shopping center was on a hill and the rear of the bank building looked down onto a nearby passing highway. A service road circled behind the bank with tall shrubs concealing the rear of the building. A high wooden fence enclosed trash containers and made a perfect place to hide the tools needed for the job.

Amil's brother-in-law, Charles Mulligan joined the operation and the two repeatedly "cased" the bank. They rented a townhouse with a direct view of the shopping center and bank building. An all night surveillance noted and recorded all the coming and going movements within the bank area.

On a dark Friday night in late March of 1972, a reconnaissance trip was made to the bank roof. A power line coming onto the roof was tapped to provide electricity. The electrical power was needed to operate a jig saw for cutting an opening through the roof and a drop light for illumination while

entering the building. The two men lowered themselves through the two foot square cutout in the roof and onto the false ceiling of the bank. Once inside, they determined how to circumvent the vault alarm that would signal the monitoring police. The two men measured and located the exact spot where entry would be made through the solid eighteen inches of the vault ceiling.

The men returned to the roof, replaced the cutout section and glued it in place with roofing tar. A small piece of mirror was stuck into the tar so it could be seen from their surveillance townhouse. Each day the reflecting mirror was checked: if the mirror had been moved, they would know the opening had been found.

After a week of watching the bank, checking their plans and equipment, they were ready. The gang had increased to six men. In the late hours of a Friday night, the shopping center was totally closed and desolate.

As the gang climbed to the roof entrance, one member headed for the alarm bell mounted on the outside wall. A mixture of freon and polyurethane was pressure sprayed through the vents of the bell housing. This mixture quickly formed a hardened solid mass and prevented the alarm from sounding.

Hours were spent drilling one inch holes into the roof of the vault and planting the explosive charges. Twenty sacks of earth were lugged to the roof of the vault. The packing of the dirt filled sacks on top of the explosives would deflect the blast downward into the vault. When all was ready, the gang moved out of the bank to a knoll behind the building. The explosive expert triggered the detonating device.

An inspection of the blast revealed a gaping two foot diameter hole through the roof of the vault. A criss-cross of steel reinforcing rods still protected the hole. An exhaust fan was used to clear the area of the smoke, dust and the strong sulphur odor. By this time, it was early Saturday morning. The gang loaded up all of their tools, sealed the roof entrance and left for the day.

That night, they returned with a cutting torch to remove the reinforcing rods. Once inside the vault, 458 safe deposit boxes were opened, all with contents of undetermined amounts. An estimate of five million dollars in negotiable items were taken.

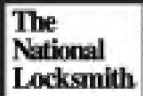
The burglary of the Laguna Niguel bank was well planned and executed.

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Continued from page 84

The meticulous research of every detail provided the formula for success. Ironically, the entire gang was caught by poor housekeeping. When the F.B.I. searched the townhouse, it had been cleaned and wiped of all evidence, except one. Dirty dishes had been placed into the dishwasher, but no one pushed the wash button. Fingerprints of all the gang members were found on the dirty dishes.

I think we all agree that cannons and explosives are not within the criteria of required tools for the present day safe technician. How about the burning bar, the "thermal lance?" Now here is a tool that will create a hole in virtually anything and won't rattle the building doing it.

The burning bar was developed during the second World War to clear underwater obstructions. The original bars were a ten foot pipe filled with small alloy rods. One end was fitted with a connection for a hose that attached to an oxygen tank. The oxygen was pressure fed through the pipe to the open end. An acetylene torch was used to ignite the bar. When lit, the temperature at the tip exceeded 7,000 degrees; a temperature sufficient to melt or incinerate any materials made by man or nature. The bar is an astonishing

destructive device.

It does have a few drawbacks. The ten foot pipe is very awkward to manipulate. Especially when the operator must be completely clothed in a fire fighter's suit. (The flashback from the burning bar is similar to being sprayed with molten lava.) The burning emits a thick smoke laden with choking gases and acid fumes. Plan on a minimum of four hours to burn a hole in a vault wall large enough for a small man to pass through. Bring along a dozen oxygen tanks and truckload of pipe. (At 7,000 degrees, the pipe burns away real fast.) There were three guys who thought all this trouble was worth the effort.

Back in 1970, "Paddy" Ginzberg. Billy Howe and Sam Calhoun burglarized the vault of Byron A. Thorpe Metal Findings Company in Westerly, Rhode Island. The Thorpe company vault usually contained between two and three million dollars worth of raw gold and silver.

Billy Howe, an alarm specialist, was to disable the alarm system. Sam had experience in tunneling and designed the underground approach to the target. Paddy had spent twenty one of the last twenty-eight years in jail on burglary charges. The dream of freedom and vast wealth was more

than he could stand; he had to be a part of this big heist.

The three men bought a used dump truck and rented an old warehouse across the street from the Thorpe Co. They began a tunnel from the basement of their building aiming for the vault across the street. They dug during the day and removed the dirt from the building in the dump truck at night. The tunnel began at five feet high and three feet wide. As their schedule slowed, the tunnel reduced to four feet and just wide enough to slip through.

Work began June 12. It would take forty five days of hard digging to reach the vault. They had an occasional cave-in and had to reclear the tunnel and shore up the ceiling. Electric lights had to be continually extended and fans were installed to circulate in fresh air. When the first shovel struck concrete, they knew only twenty-two inches separated them from millions of dollars!

The face of the wall was cleaned and a room was dug out for operating the burning bar. Paddy was suited up in the fire fighter's gear. The oxygen was turned on and the tip of the bar ignited. Paddy probed the giant sparkler at the wall. The immense

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shower of sparks startled Paddy so badly, he fell backwards, sprawling on the floor. The pipe flailing about the room started numerous fires as it touched the supporting wooden timbers within the room. The men desperately fought out the fires and retreated to the warehouse to rethink their approach to the vault wall.

The second attempt only lasted a few minutes. The smoke and fumes became so thick, Paddy was about to become asphyxiated. Electric fans were brought to the wall in an effort to blow the smoke down the tunnel. Then hose was rigged from an oxygen tank to feed air under the mask that covered Paddy's head. The project moved ahead a little smoother, but at a snail's pace. "Paddy's tomb" filled with smoke quickly and he couldn't see where he was burning. Shutting off the burning bar and waiting for the smoke to clear was a very frequent occurrence.

Their patience paid off. Although many items within the vault were destroyed or damaged by the molten slag blowing into the vault, 65 gold bars survived. Each bar weighed 27-1/2 pounds. With the gold value in 1970, the three men shared a total \$1,100,000.

So O.K., the burning bar isn't too

practical for today's safe technician. How about a big, diamond tipped hole saw!

The core drill was originally designed for the construction trade to cut various sizes holes into concrete slabs or forms. The cutting end of this hollow tube is impregnated with carbide and diamond chips. The drilling rig appears similar to an oversized drill press. Imagine the base of drill press bolted to a slab of concrete. The core drill is locked into a chuck of the drilling motor. A lever or feed control moves the drill downward through a hole in the base where the tip of the core drill meets the concrete.

During a conversation with a local concrete cutting company, I was told they had, in inventory, core drills in sizes from four inches up to twenty-four inches in diameter. The drills vary in depth or length. If the concrete is thicker than the depth of the drill, the core is broken out of the hole and the drill reinserted to continue drilling.

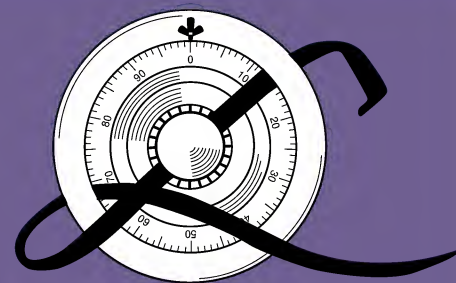
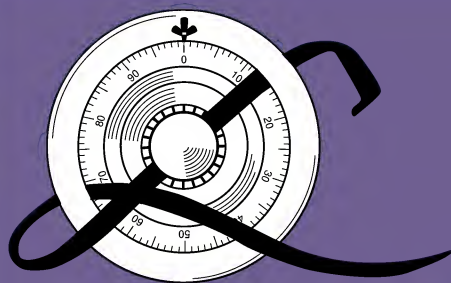
This cutting company had drilled a couple of eighteen inch thick vault walls. They had been contracted to drill the walls for the installation of newly required air vents. For them, it was a one man job. The drilling rig is bolted to the wall. The connection of a water hose to the rig sprays and heavy mist

inside the hollow drill to flush away the grindings of the cutting. A Wet-n-Dry shop vacuum collects the water waste as it runs to the bottom of the core cut.

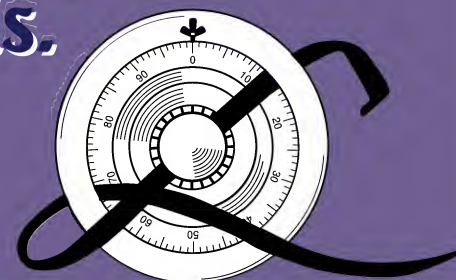
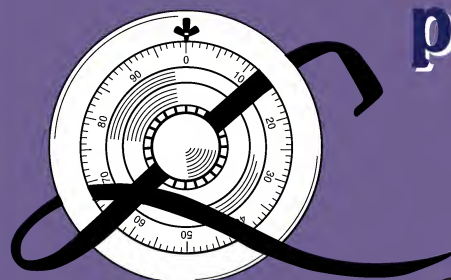
A nine inch diameter core drill will cut at the rate of about six inches per hour. The encountering of reinforcement bar within the wall adds only a slight amount of additional time. The total time to drill a hole in the vaults was about five hours. One hour for the set up of the drilling rig, three hours drilling and an hour for removal of equipment and clean-up of the area. A small amount of water will run down the inside wall as the drill breaks through the inner wall. The cost will vary, but figure at least \$100.00 per hour.

Has a core drill ever been illegally used to break into a bank vault? Yes, and it did a very good job. In 1974, the Bank of The West, in Woodland, Washington, was burglarized of \$360,000. The thieves used a core drill to gain entry through the roof of the bank vault. What stops the crooks today from using the core drill on bank vaults? Electronics. Devices can now sense penetration attempts on any of the six sides of the vault.

Note: Reference to the bank burglaries were taken from Robert R. book, "Game of Thieves." §



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The Lighter Side

It's That Day Again!



by Sara Probasco

"Humor comes in a variety of interesting forms. One type that crops up annually centers around the first of April.

April Fools' was always a time of fun and harmless pranks, for my family. From childhood, I remember hearing the family classic which concerned the time my grandfather used that day to "get even" with a friend who repeatedly snitched his chocolate covered cashews.

The cashews were Grandad's favorite goodie and something he could only obtain on rare trips to the

city. We learned, early on, that they were strictly Grandad's, and not for sharing. He would nurse a small box of them for months, enjoying one or two each evening after supper.

Hank had apparently never been informed of the precious nature of the delicacies. On occasional evenings, when he would stop by after supper, if Grandad wasn't swift enough to tuck the box away in a drawer, Hank would scoop up a handful of the coated nuts and cram his mouth full of them. Then he would groan with pleasure as he ground the nuts between his teeth.

One April Fools' Day, Grandad devised a plan to put an end to this "snitchery." After peeling several clusters of garlic, he dipped them in bitter chocolate and set them aside to dry. Then he filled an empty confectioner's box with them and

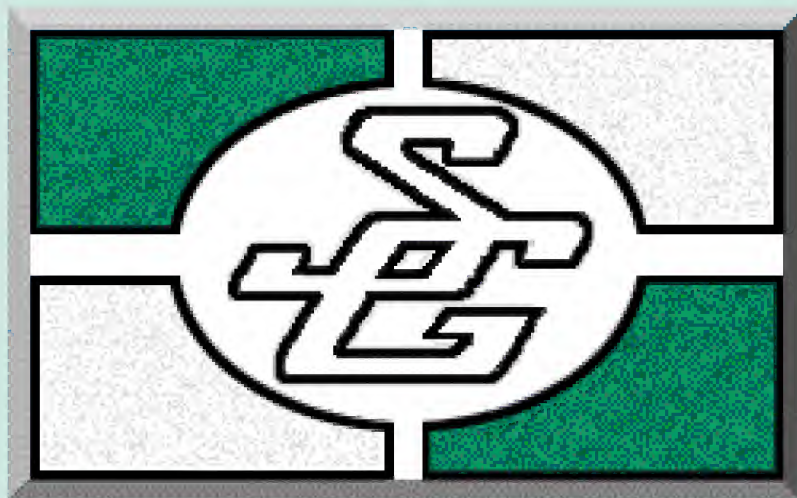
set them on his lamp table to await Hank's visit.

His friend did not disappoint him. Entering the room, Hank scooped up a handful of the confections and chomped down. His eyes bugged out and his face turned red as his mouth was filled with the strong tastes of bitter chocolate and garlic.

According to the family legend, Hank never raided Grandad's cashews again.

My biggest advantage in the April Fools' trick-playing department was that I had the family at my mercy first thing in the morning, before they had realized what day it was. The worst prank I ever came up with was baking a thin layer of cotton in the center of everyone's pancakes but my own. Then I sat down to enjoy my

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pancakes with a look of innocence on my face, while the other family members struggled to get a fork into theirs.

One thing I have observed is, when pranks are being pulled, the pranksters usually enjoy the occasion more than do the prankees. However, we all need an excuse to sharpen our senses of humor in this crazy world, and laughing a bit at ourselves can be an important step in that direction.

Laugh-at-yourself humor can come in a variety of forms besides pranks. Sometimes it's more the "you got that right!" variety. To wit....

YOU KNOW IT'S GOING TO BE A BAD DAY, WHEN:

1. You wake up face down on the pavement.

2. You put your bra on backwards and it fits better that way.

3. You dial 911, and they put you on hold.

4. You see a "Sixty Minutes" news team waiting outside your shop.

5. Your birthday cake collapses from the weight of the candles.

6. Your only son tells you he wishes Anita Bryant would mind her own business.

7. You decide to put on the clothes you wore home from the party last night, and there aren't any.

8. You turn on the news, and they're displaying emergency evacuation routes from your town.

9. The woman you've been seeing on the side begins to remind you of your wife.

10. Your twin sister forgets your birthday.

11. You wake up to discover that your water bed broke during the night, and then you realize you don't have a water bed.

12. Your horn goes off accidentally and remains stuck as you follow a group of Hell's Angels down the freeway.

13. Your wife wakes up feeling amorous and you have a headache.

Pitching humor with some locksmiths, recently, we came up with some of our own. For example,

YOU KNOW IT'S GOING TO BE A BAD DAY IN THE LOCKSMITH SHOP WHEN:

1. You're wedging a locked vehicle passenger door and you see two policemen at the driver's door with a Slim-Jim.

2. An unsmiling man with a briefcase enters your shop and

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Beginner's Corner

Rekeying Locksets



by Eugene Gentry

When you are asked to re-key a lockset, most likely there will also be a deadlock on the door that you will be asked to key alike. Generally, most of the deadlocks are easy to dismantle because you can readily see what bolts or screws need to be removed to free the cylinder. You will need a retaining ring plier, and a cylinder cap remover, one that has a different size diameter head on each end. This is to handle different size caps at the rear of the cylinder. Following is information on some various types of deadlocks:

To remove the Weslock, shown in photograph one, from the door, first turn the thumb turn halfway to expose the two Phillips screw heads. Remove these screws, and the front and rear of the deadlock will be free. Note the single large head Phillips screw that holds the cylinder in position. Remove this screw, and the cylinder will fall out. Place the cylinder cap remover, which is hollow, over the tailpiece, depress the brass pin located in the notches in the cap, and turn to remove the cap. The plug is now ready to be pushed out with follower for re-keying.

The key blanks used for Weslock are: Cole WKI, Ico 1175, Taylor 175, or Star 5WKI. This is a five pin lock. Use a pre-cut key, or if you do not have a code machine and make your own key, make sure you have a wide bottom cut, .040 to .045.

Don't forget to put the tailpiece back in when re-assembling. Tighten the cylinder cap, then loosen it until the plug turns easily in the cylinder. Set the cylinder in the lockset, and tighten the screw holder. To replace on door, put front on first, placing tailpiece through the latch, then put the rear face plate on, lining up the thumb turn with the tailpiece. Now



1. The Weslock disassembled.

replace two screws that hold the deadlock on the door and tighten.

To work on the National Lock shown in photograph two, center the thumb turn and remove two Phillips screws to remove the deadlock from door. The front face plate will separate from cylinder. This deadbolt requires the use of a tiny Phillips-head screwdriver to remove the two screws at each side of rear cylinder. Once these are off, the tailpiece comes loose, and the plug is ready to remove. There is no cap or retaining ring. Remove plug with a follower.

This is a five pin lock, and key



2. The National deadlock.

blanks used are Taylor R174D or Ico R1064D. To install the deadlock back on door, place the faceplate over the cylinder, and put the front piece on first, placing the tail piece through the latch. Line up the back plate with the tailpiece, and replace the two screws.

The Weiser deadlock shown in photograph three is removed from the door by taking out two small Phillips screws at the rear. This removes the rear face plate, exposing two more long screws that hold the deadlock in the door. Take these out and pull the the front of the lock out of the door.

The Weiser is similar to the Weslock because it has the single large head Phillips screw that holds the cylinder in the lock. The cylinder comes out at the rear. Use the cylinder cap remover to remove the rear cap, and push out the plug with a follower. This plug is a five pin and uses key blanks, Cole WR2, Star WR2, and Ico 1054 WB. On this key blank, if you are making your own key, be sure you have wide bottom cuts, at least .040.

When finished re-keying, put the tailpiece inside the cap. Make sure the little pin and spring at the rear of the plug hasn't dropped out. Tighten the cap so the plug turns freely in the cylinder. Put the cylinder back in the lock, and tighten the screw that holds the cylinder in. Replace the front lock



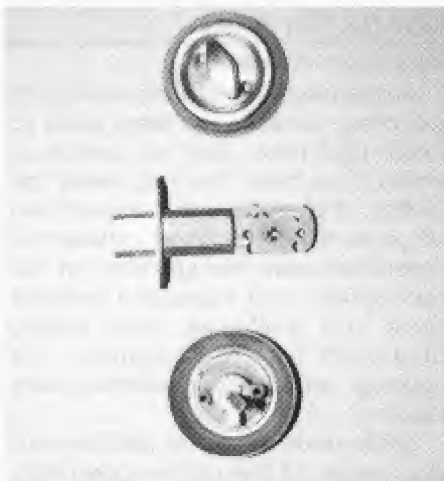
3. The components of the Weiser lock.

on the door by sliding the tailpiece through the latch. Place the back plate with two small holes up, replace the two long screws, and tighten. Put the back faceplate on, lining up the thumbturn with the tailpiece. Install two smaller screws in faceplate.

To service a Harloc, as seen in photograph four, remove the two Phillips screws on the rear faceplate. This will free the lock from the door. Pull out the front lock, and remove the front faceplate from the cylinder. With a retaining ring pliers, remove the retaining ring from the end of the plug. This will release the plug and the ring that holds the tailpiece in. Push out the plug with a follower.

The key blank to use is either a five pin, Cole EA27, Ilco 1014 F or Taylor 61F. After rekeying, put the tailpiece through the small ring. Hold the tailpiece and ring in two slots at the rear of the plug while you install the retaining ring at the rear of the plug. Place the front faceplate on the cylinder, and put the front of the deadlock on the door by putting the tailpiece through the latch, then attaching the rear plate with the two long screws.

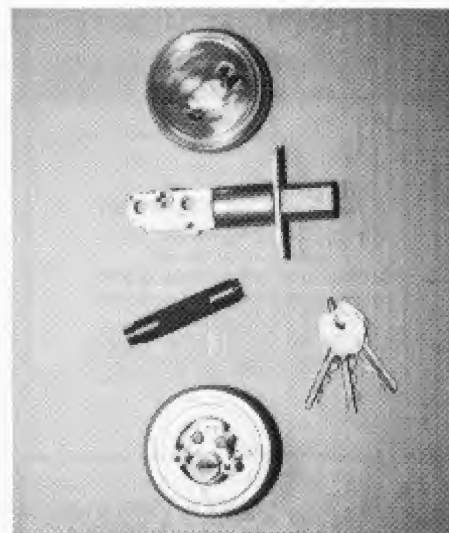
The home improvement stores are selling a lot of locksets and deadlocks that are made in Taiwan. People buy them because they are less



4. The Harloc deadlock.

expensive than some of the American-made locks. Be careful when you rekey them. These deadlocks, Defiant, Guardsman and Tesa, are made in Taiwan, and use the Kwikset key blank, Star 5KWI, Taylor 54Ks, Ilco 1176 or the longer Taylor IN3. If you try to rekey these the same as a Kwikset lock, you might find the spacing is different, particularly on the last two holes. You might remedy this by widening the bottom cut on the key blank.

Photograph five is a Defiant deadlock. Note the two screws that hold the cylinder in place. Pull the cylinder out to the rear. Use the same procedure as on the Weslock, with



5. The Defiant, made in Taiwan.

the cylinder cap removal tool to press down the pin and remove the cap.

The Guardsman, (see photograph 6), has similar removal methods as the Defiant, using the cylinder cap removal tool.

The Tesa (see photograph 7), has two screws that hold on a plate and the tailpiece. With this removed, you can see a large retaining ring at the rear of the cylinder. The plug will come out with the retaining ring out of the way.

On occasion, you will find a

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Honda Service

Continued from page 31

Performing identical operations to the other vehicle, we were able to swap ignitions. Just as feasible, would have been to simply rekey the ignition and replace it. It should also be stated that the only difference noted between the ignitions on the automatic and standard vehicle were the switches and wiring attached to the housings. The housings and the key switches were identical.

While reinstalling the ignition was the reverse of the above operation, we found two aspects of reassembly important enough to cover.

The first is remounting the buzzer switch to the ignition. A close inspection of the assembly showed that a small needle size button had to be slid under a small lever on the ignition. To accomplish this, the switch was slid back into place with the key out of the ignition.

The second is replacement of the key interlock system switch. After replacing this unit, gently turn the key in the ignition. If this movement is obstructed in any way, remove the switch and reinstall it with the key turned to the "on" position. The switch's metal lever must lie in the proper channel section of the ignition plug. If it is not, it will impede turning of the key and cause damage to the switch's lever.

To date, the Accord EX wagon is the only Honda vehicle with the remote option. We'll wait until next year to see if any more follow suit. §

AAA Lawsuit

Continued from page 32

read your policy carefully, however, to insure that this type of lawsuit is not excluded by the insurance company. Also he says to be sure that you have the insurance coverage in place before you advertise your trade name.

Richard Rinner is general counsel for the American Automobile Association. Although he would not comment on this specific case, Rinner states, "AAA vigorously protects our trademark. Our trademark is constantly being infringed upon by people offering similar services. Trademark owners are obligated by law to protect their marks or they will lose them." He continues, "We pursue people every year who infringe on our trademark. Often these cases do not go to court as people are often willing to

change their name when they realize their legal situation."

I asked Mr. Rinner about other locksmiths using similar names, but not exactly 'AAA.' Would a locksmith named 'AA' be a problem, for example? "We wouldn't even contact a person using 'AA,' " he said. And when we contact a person using 'AAA,' sometimes they offer to drop one of the A's and become 'AA.' We leave those people alone after that because then the public won't be confused between them and us."

Preliminary hearings are scheduled at a time after the writing of this article. And it is possible that the case could take somewhere around one year to be decided.

Scott Havlick, the attorney defending the locksmith notes, "Once we learn more about this case, then we can really determine our likelihood of success with this suit. For other locksmiths out there with a similar name, they have reason to be concerned. Two or three years down the road, you may have to change your name." §

Locksmith Tools

Continued from page 55

Ratchkey's™ Mechanical Advantage

The Ratchkey™, available from Ratchkey Corp., makes it easy to break the grip or tighten the chuck used on hand-held drills. Simply insert Ratchkey into the chuck and turn. The handle provides the mechanical advantage needed to break the toughest chuck hold and the ratchet action lets you loosen or tighten without changing your grip.

For locksmiths and others whose work can involve frequent drill bit changeovers, Ratchkey is a real time saver as well as a convenience.



The Ratchkey in action.

Even for occasional users, it's a welcome addition to the toolbox. Ratchkey fits the new 3/8" standard chuck used on all cordless 3/8" drills. Models for other popular sizes found on hand held drill, drill presses, lathes and other chuck equipped machine tools will also be available.

You could say Ratchkey is Yankee ingenuity at its best. Henry Cummings, a Massachusetts machinist, got tired of the hassle and sometimes skinned knuckles he got doing jobs requiring a drill and frequent changeovers, so he came up with a device that provided a good mechanical advantage and could be used to tighten as well as loosen the chuck. It worked so well (and so many fellow workers borrowed it) that Henry decided to see if anyone else wanted it. The reaction has been, "Where can I buy one?" and Henry is now a busy partner in the small company that makes it.

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The Lighter Side

Continued from page 92

demands to see the owner.

3. You pick up your tool box by the handle before noticing that somebody left it unlatched.

4. You pick up your pin kit by the lid before noticing that somebody left it unlatched.

5. For the first time in your life, you have failed to ask for identification before unlocking an unknown customer's house, and you see a hidden camera in the bushes.

6. You receive notice of a property damage suit being brought against you at the same time you receive notice that your liability insurance has lapsed.

7. At midnight, you agree to open an idling vehicle for \$25.00, then, after you hang up, you realize the address is 65 miles away.

8. It's your turn to dun customers for unpaid bills, and the biggest one that's past due is the Godfather's brother-in-law's account.

9. You spend three hours rekeying a building, then discover you're at the wrong address.

10. You reach to readjust your light and hear your prize opening

tool fall down inside the door.

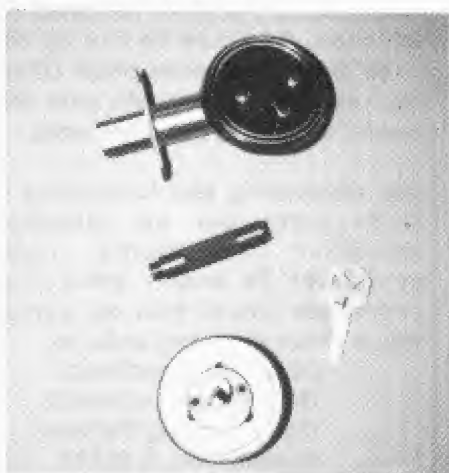
11. There's an envelope in your mail from IRS, and you're not expecting a refund.

12. You call to tell a customer that their \$10,000 order of custom brass hardware has finally arrived, and you get a recording that says, "We're sorry, the number you have dialed is no longer in service."

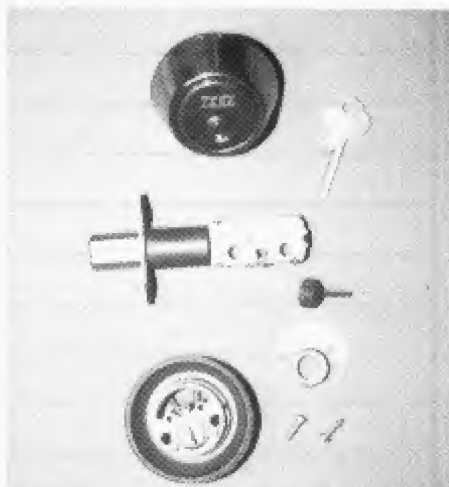
HAPPY APRIL FOOLS'!

Beginner's Corner

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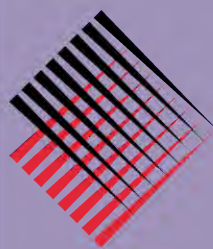
6. The Guardsman lock, made in Taiwan.



7. The components of the Tesa lock.

double cylinder deadlock using a key inside and outside. You will have to remember you have two cylinders to charge for on a re-key.

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